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ABSTRACT

This document reports the proceedings of a conference on early childhood and family research sponsored by the Administration on Children, Youth and Families (ACYF). Presentations at the conference consisted of reports of research, literature reviews, descriptions of projects funded by ACYF, and commentaries on research and practice in Head Start. The conference consisted of several special sessions, 25 panel discussions, 16 roundtables, and 11 symposia. The panels addressed topics that included: (1) children's health; (2) the theories of Vygotsky and Feuerstein; (3) developmental screening; (4) homelessness; (5) school readiness; (6) foster care; (7) mainstreaming; (8) Head Start evaluations; (9) poverty; (10) parent involvement; (11) adolescent parenting; (12) child care; (13) peer conflict; (14) child abuse; (15) emergent literacy; (16) minority families; and (17) at-risk children. Topics considered by the roundtables included school transition, policy formation, national evaluations, staff training, children with special needs, minority children, and programs that simultaneously address the problems of two generations. The symposia considered topics that included mathematical cognition; infants with low birth weight; HIV-infected mothers; and maternal characteristics. A directory of presenters is appended. (BC)

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NEW DIRECTIONS IN CHILD AND FAMILY RESEARCH: SHAPING HEAD START IN THE 90'S

Presented by:

The Administration on Children, Youth and Families,

The Administration for Children and Families

Department of Health and Human Services

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CONFERENCE PROCEEDINGS

NEW DIRECTIONS IN CHILD AND FAMILY RESEARCH: SHAPING HEAD START IN THE 90'S

June 24-26, 1991

Presented by:

The Administration on Children, Youth and Families,
The Administration for Children and Families,
Department of Health and Human Services

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National Council of Jewish Women Center for the Child
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Society for Research in Child Development
University of Michigan
300 N. Ingalls, 10th Floor
Ann Arbor, MI 48109

for the

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Administration for Children and Families
U.S. Department of Health and Human Services

Project Officer:	Soledad Sambrano Administration on Children, Youth and Families
Editors:	Faith Lamb Parker Ruth Robinson Soledad Sambrano Chaya Piotrkowski John Hagen Suzanne Randolph Amy Baker
Production Assistants:	Pamela J. Freeman Jeri Juroff Sarah Rice Sari Schimek Sarah Gluck Shelley Levine
Cover design by:	Rebecca Blake

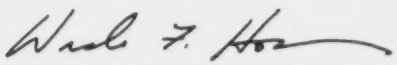
January, 1992

FOREWORD

The Administration on Children, Youth and Families (ACYF) is pleased to make available the Proceedings of the first national working conference on early childhood and family research entitled, "New Directions in Child and Family Research: Shaping Head Start in the 90's." The conference took place June 24-26, 1991 in Arlington, VA.

As the year 2000 approaches, there are ever increasing challenges for children and their families. Poverty, drug addiction, homelessness, single parenthood, AIDS, and family violence have created a social context that tests traditional assumptions, practices and solutions. This conference was designed to broaden and delineate a clear research base for the next decade and beyond that, hopefully, will lead to more informed programmatic solutions. Its purpose was to foster exchanges among researchers, practitioners, policy makers, funders and government officials.

These Proceedings are a compilation of presentations that represent cutting-edge research, literature reviews, innovative ACYF funded projects, and commentary on research and practice in Head Start, past, present and future. It is hoped that these Proceedings will stimulate increased interest in Head Start research and provide the impetus for making the dissemination and utilization of research a priority.



Wade F. Horn, Ph.D.
Commissioner
Administration on Children, Youth
and Families

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SPECIAL SESSIONS

Opening Session

Introduction: **Soledad Sambrano**, Project Officer
Administration on Children, Youth and Families

Welcoming Remarks: **Joan Bronk**, President
National Council of Jewish Women

John W. Hagen, Executive Officer
Society for Research in Child Development

Faith Lamb Parker, Project Director
NCJW Center for the Child

Keynote Speaker: **Wade F. Horn**, Commissioner
Administration on Children, Youth and Families

SOLEDAD SAMBRANO: On behalf of the Head Start Bureau and the Conference Planning Committee, I welcome you to Head Start's research conference.

It was a wonderful experience to plan this conference and receive the tremendous response that we got from you. I feel that we must be addressing a need which is shared by many of you -- the need to come together and share knowledge and insights on current theories of child development and family functioning. I also get the feeling that there are many people who really care about poor children and families and are willing to invest their time and energy to address issues that affect them through this forum.

Times have changed since Project Head Start was initiated 26 years ago. While we know from past research that quality programs for young children and their families can significantly improve their lives, we also know that significant social changes are occurring and intervention strategies have to be altered to meet the changing needs. Homelessness among families is increasing, so is family illiteracy, substance abuse among the young and old alike, teenage pregnancy, single parenthood, and the like. This is the new social context in which practitioners try to offer services to families.

At the same time, we know that there is an emerging field of research that aims to explore aspects of child development in this new social context. Although some of the research in these new areas is still in its infancy and researchers may find it difficult to apply traditional research paradigms to new problems, practitioners who work on a daily basis with these families are working in the absence of guidance based on this newest scientific thinking.

It is essential that practitioners have access to the research that is beginning to help us learn about how children and families develop in this social context. There has been little formal gathering of researchers, practitioners, and policy-makers at forums that take as their mission the presentation of basic and applied research specifically for applied purposes. This conference is intended to fill this void.

The goals of the conference are: to disseminate the latest child and family research to leaders in Head Start and other early childhood programs; to introduce researchers to opportunities for research; to foster ongoing exchanges among researchers, practitioners, policy-makers, and government officials; and, ultimately, to improve programs and services for children and their families.

We are pleased to have two organizations that are well-known for their advocacy on behalf of children collaborating with us on this conference. It is my pleasure to present Joan Bronk, who is representing the National Council of Jewish Women, Center for the Child. As president of the National Council of Jewish Women, she represents 100,000 volunteers in 500 communities across the nation. For 98 years, the National Council of Jewish Women has been concerned with the well-being of children.

Joan Bronk is a long-time advocate for children. She worked to educate state legislators in Louisiana on the merits of a bill requiring physicians to report evidence of child abuse. She was instrumental in forming a statewide coalition to open a domestic violence shelter. She has received numerous awards for her community service work in New Orleans and New Jersey. Her volunteer work with NCJW reflects Ms. Bronk's lifetime commitment to community service and to improving the lives of all children.

I am pleased to introduce to you Joan Bronk.

JOAN BRONK: I am delighted to welcome you and extremely pleased that the National Council of Jewish Women is part of this important gathering. For us, this conference is significant. It is a significant step in bringing researchers, program implementers, and key decision-makers to focus on improving programs for children.

Throughout our nearly one hundred-year history, NCJW has been committed to promoting the welfare of children and families. Education of young immigrants and the poverty-stricken, juvenile justice, the detection and prevention of child abuse and child-care needs are but some of the threads that have been woven into our organizational fabric of advocacy, education, and community service.

We have long believed that the framework of our tapestry is research. And, in 1983, we institutionalized that commitment by establishing the NCJW Center for the Child, which became operative in 1985. Its mission is to improve the lives of all children. The challenge of satisfying that mission is one we now face together. How do we determine the best ways to meet the needs of children and their families? How do we break through the terrible social barriers that prevent children's school success? How do we help families help their children? How do we help the children and their families all over the country who need Head Start? And, how do we reach the many children, just in the city of Washington, D.C., alone, who may already be doomed to a life of dropping out, doing drugs, and doing time?

These are some of the hardest questions of our day. Head Start has had a tremendous impact on our nation. Certainly it is one of the greatest educational programs of the 20th century. But, I dream of a day when every child in American will have access to the enormous educational rocket power of Head Start -- a day when those children will soar to success from that boost.

This conference is a collaboration of three very different organizations. But we share one common thing: our commitment to research and our dedication to improving the lives of children. NCJW brings to this partnership the energy, the devotion, and the power of thousands of volunteers across America. In your research and program implementation partnerships I ask that you remember volunteers. For we represent a vast, sometimes invisible, but always powerful resource for children and families. We offer you our heartfelt commitment and our strength today. I wish us all success in this conference.

SOLEDAD SAMBRANO: Representing the Society for Research in Child Development is John Hagen. John Hagen is presently the Executive Officer for SRCD. He has helped us immensely in planning the conference. He is a professor of psychology at the University of Michigan. He is also the director of the Center for Human Growth and Development at the University of Michigan. He serves on several federal advisory panels.

Dr. Hagen received a Ph.D. from Stanford University at Palo Alto, California. He has an extensive number of publications to his credit in the areas of cognitive development and learning disabilities. It has been a pleasure for me to work with John.

Please help me welcome John Hagen.

JOHN HAGEN: This has truly been an effort of many different people, many different areas of expertise, and many different talents. I think it shows that when you get all the people together who have the different kinds of knowledge, backgrounds, and expertise needed to deal head-on with problems children are facing, indeed, it can work. I hope this is the first of many such endeavors and that throughout the decade of the 90's we will see a lot more collaborations to solve these very pressing problems.

For those of you who don't know who SRCD is, we are a professional inter-disciplinary organization of about 4,600 researchers who publish the journal Child Development and several other publications, including the Social Policy Report. We have numerous standing committees that deal specifically with the issues and problems of the child. We also hold a biennial meeting; our most recent one was in Seattle. As a society, we are 58 years old. We were the result of a committee on child development that was appointed by the National Research Council in the late 1920's. We really were a part of the first movement on behalf of children in the United States, and we are one of the enduring legacies of that movement of the late 20's and early 30's. From the beginning, our mandate has been to be inter-disciplinary and applied, as well as basic. Our goal has been to work for the benefit of all children and parents. The Laurence Spellman Rockefeller Memorial provided the initial start-up funds for our society, as it did for the first set of child-development centers in the country, such as those at Columbia, Berkeley, Toronto, and Minnesota. Many of our members have been leaders in Head Start since its beginning in the 1960's, and, in fact, as a graduate student at Stanford, my then mentor, Eleanor Maccaby, took me to many of the sites where Head Start was just beginning. I don't think any of us thought back then that we were seeing the beginning of a national movement that has turned into something as comprehensive as Head Start. Many people have observed, just in the last few years, that there really has been a meeting of applied and basic research, and a translation of the knowledge base we now have has become a primary goal of many people and many organizations.

And I think what we are really seeing is that we are on the threshold of an exciting and potentially innovative time in the discovery of the relationships between what we know from theory and research and what we can actually do in applied settings. And this indeed is, I think, the essence of what SRCD has had to contribute generally and what it can offer specifically to Head Start.

When I get together with my colleagues who were graduate students at the same time, we talk about the fact that most of what we learned and the textbooks we used in the early 1960's are simply out-dated now. And that is really a good sign, because it means that we do have a substantially better knowledge base.

I think we also feel that it is a tragedy if that knowledge base is not being put to use, and I cannot imagine a better area to do this than Head Start, and I think that is what we are going to be about for the next two-and-a-half days here. I look forward to meeting many of you individually. I am going to be a part of a couple of panels on the program, and I hope that we all, by Wednesday, will feel that progress has been made, that we are on a threshold and will see tremendous changes in what we will be able to do for children in the decade of the 90's, which was a goal that those of us who began planning this conference about a year-and-a-half ago had.

SOLEDAD SAMBRANO: It is a pleasure for me to introduce to you the keynote speaker, the person who has made this conference possible, Dr. Wade Horn, Commissioner for the Administration on Children, Youth and Families.

Dr. Horn was sworn in as Chief of the Children's Bureau and Commissioner of the Administration on Children, Youth and Families in the Department of Health and Human Services on July 27, 1989. He administers programs serving children, youth, and families, including Head Start, Foster Care and Adoption Assistance, the National Center on Child Abuse and Neglect, Runaway and Homeless Youth Shelters, and anti-drug programs targeted for runaway youth and youth at risk for joining street gangs.

We are very fortunate at ACYF to have a person who is not only an outstanding advocate for programs for children and families but is himself a researcher and appreciates the importance of the role of research to inform national policies.

It is with pleasure that I introduce to you Dr. Wade Horn.

KEYNOTE ADDRESS

WADE HORN, COMMISSIONER

Administration on Children, Youth and Families

After twenty-six years and some 11 million children, Head Start is no longer a theory about bringing up children. It is a proven, effective, and established program, a program that works. Head Start works for millions of children to whom it has delivered not only developmentally appropriate education, but also comprehensive health care, enhanced nutrition, and a vital sense of self-discipline and self-worth. It has provided children with a first glimpse of the unlimited possibilities open to them as they develop their minds and spread their wings.

Head Start also works for millions of parents who have become actively involved in their child's education, both at home and as volunteers at the centers. In fact, last year, nearly a half a million parents volunteered their time in local Head Start programs. Many of you in the audience today have conducted research showing that many of the long-term gains made by Head Start children derive from the empowerment of parents. Low-income parents, migrant parents, parents with limited English proficiency, and other parents who may be intimidated or overwhelmed by the public education system learn through Head Start that school is not a mysterious and forbidding place, but rather a place where children can learn, thrive, and develop well, and where parents can be true partners in their children's education. Parents have learned through Head Start about nutrition and the value of immunizations, and have even learned where to enroll in a job training course, or, if need be, where to get help for a substance abuse problem. In fact, 95% of Head Start parents last year received social services, either through Head Start or through a referral to another agency. Parent empowerment is one reason why Head Start children and their families tend to maintain a positive, involved, and consistent relationship with their school.

President Bush and Secretary Sullivan are convinced that Head Start works. That is why over the last two years we have asked for the two largest yearly increases in appropriations for the Head Start program in the history of Head Start. That means we have added $700 million to Head Start in just two years, which will allow us to serve almost 600,000 children in Head Start. That is no small achievement. In fact, it represents about 55% of all the income-eligible children being served for at least one year through Head Start.

Bringing more children under the Head Start umbrella also moves us closer to achieving the first of the National Education goals outlined by the President's education summit this past September -- the goal that all children in America will start school ready to learn. The President has recently re-emphasized in this long-term strategy for educational success, America 2000, that being ready to learn means more than knowing one's ABC's. It means not being distracted from learning by an empty stomach, by violence in the streets, by inadequate housing, or by childhood disease. To this end, President Bush, Secretary Sullivan, and Surgeon General

Antonia Novello recently announced a stepped-up child immunization campaign. Immunization teams consisting of public health officials will be visiting six major cities to examine why too many of our nation's children lack proper immunizations. Their mission is to make sure the word of immunizations spreads so diseases do not. It is a remarkable achievement that 99% of children who leave Head Start are fully immunized by the time their stay in Head Start is over. The tragedy is that far too many of those children enter Head Start not fully immunized; what we intend to do with this initiative is try to discover ways to insure that those children entering Head Start have as fine a track record of immunizations when they enter as when they exit.

Part of Head Start's mission is to serve as a catalyst for research and discussion of child development and family functioning. In the decades after Project Head Start was developed in the 60s, extensive research was done to answer the basic question: Does Head Start work? We answered that question with a resounding "yes." Our conclusion was drawn from a host of studies that found that Head Start programs achieve significant and lasting change. Many of you are familiar with the findings of the Consortium for Longitudinal Studies, which found that compared to control children Head Start children are more likely to avoid serious school problems, and, as they move through the elementary school grades, are less frequently retained in grades and have better attendance records.

We are now poised on the edge of a new set of questions, questions that will impact upon individuals, questions such as which aspects of Head Start were best and for whom and under what circumstances. Julia Ward Howe, a social reformer, once asked Senator Charles Sumner to interest himself in the cause of an individual who had needed some help. The Senator answered, "Julia, I've become so busy I can no longer concern myself with individuals," to which Julia replied, "You know, Senator, that's quite remarkable, even God hasn't reached that stage yet." Fortunately, the Department of Health and Human Services hasn't reached that stage either, nor has the community of child development and family issue researchers, for we are here this week to push forward a new agenda for Head Start research, one that will evaluate the impact of various Head Start components on sub-groups within the population of children served.

Last year, over a half a million children participated in Head Start. Included in that number are the first group of children with varying needs and capabilities and resources. For example, two-thirds of the children served belong to minority communities: 38% are Black, 22% are Hispanic, 4% are Native American, and 3% are Asian. Almost 14% of Head Start children are challenged by a learning or physical disability, and some 23,500 children are in migrant families. In addition, 55% of Head Start families were headed by a single parent, and 46% had family incomes below $6,000 a year. We are ready now to ask which Head Start components are particularly effective with which sub-groups of Head Start populations. We are ready, in other words, to narrow our focus to examine how different Head Start practices impact various sub-groups.

Times have changed since the early 60s. Our research must reflect the changing realities of our children's world. To issues related to civil rights and poverty, which were present in 1965 at the birth of Head Start, new issues have been added, including increases in the number of women with young children in the work force, increases in teen pregnancies and single parenthood and the incidence of AIDS and drug addiction, which have resulted in increasing births of HIV-positive and drug-addicted babies. These changes pose significant challenges for practitioners serving Head Start families.

This conference presents a timely vehicle for practitioners to share insight on how programs can be adapted to this new social context. This conference presents an opportunity for researchers to fill in the gaps of our knowledge base. And this conference offers policy-makers the chance to become aware of cutting-edge research being conducted on child and family issues. Head Start was once only a theory. But efforts like yours have transformed it into the cornerstone of our endeavor, to prepare disadvantaged children for success in school and in life. All of us at ACYF challenge each of you to consider over the next several days how your research and programs can meet the needs of specific children by adapting Head Start to the needs of diverse communities so that we can insure that no youngster will ever again fall through the cracks and that no youngster ever again will have been robbed of an opportunity for a fulfilling, rewarding and enjoyable childhood. Thank you all for your participation in this research conference

SOLEDAD SAMBRANO: I had no idea that putting together a conference like this entailed so much detail. I have been very fortunate in having a very special person working with me on this effort: Dr. Faith Parker. Faith Parker, who is a staff member at the National Council of Jewish Women, Center for the Child, has served as the project director in charge of planning this conference. Faith has an amazing operational data base on conference management and knowledge of research and researchers. For those of you who have not had the pleasure of meeting her or speaking to her over the telephone, I would like to take the opportunity to introduce her to you. Faith Parker.

FAITH PARKER: This project has been both exciting and challenging, and could not have happened without the commitment of many people: NCJW's Executive Director, Iris Gross; the Center Director, Chaya Piotrkowski; John Hagen and Suzanne Randolph from SRCD; Soledad Sambrano, our Project Officer; and a strong, dedicated team.

Soledad Sambrano has been the central figure in making this conference a reality. With experience, grace, and good humor, she has guided us through this venture. I would like now to introduce the conference staff members, who, over the year, have consistently given the extra time and energy that was needed to complete this major task: Ruth Robinson, Senior Program Associate; Pamela Freeman, Program Assistant; and Jeri Juroff, Administrative Assistant. I would also like to thank Laura Skidmore from SRCD

who not only worked with us all year as liaison to SRCD and lent us her expertise on conference planning, but is also here now helping us manage on-site conference operations.

SOLEDAD SAMBRANO: I would like to acknowledge the ACYF staff members who are participating in the conference. I can't name each individual, but I would like to welcome them to this exciting event.

And to all of you here, we hope you find the conference a worthwhile experience. Hopefully, with this conference, we will be forging together knowledge gained from past experiences with ongoing research and new human developmental theories in our present social context.

Enjoy the conference!

Monday Luncheon

Introduction: **Wade F. Horn**, Commissioner
Administration on Children, Youth and Families

Remarks: **Jo Anne B. Barnhart**, Assistant Secretary
Administration for Children and Families
Department of Health and Human Services

Keynote Speaker: **Charles E.M. Kolb**, Deputy Assistant
to the President for Domestic Policy

Awards presented to the members of the Advisory Panel for the Head Start Evaluation Design Project.

WADE HORN: It is truly my pleasure to open this luncheon session. There are three parts to this session. First I will introduce my boss, and then she will introduce our distinguished speaker. Then after that, I want to do something that is truly going to be a pleasure for me -- to acknowledge the contributions of the members of the Advisory Panel for the Head Start Evaluation Design Project, who put together the blueprint for the next generation of evaluation studies.

It is an absolute pleasure to introduce to you my boss, Jo Anne Barnhart. Jo Anne Barnhart was nominated by President Bush and confirmed by the U.S. Senate as the Assistant Secretary for Family Support on April 10, 1990. A year later, on April 15, 1991, she was named Assistant Secretary of the newly formed Administration for Children and Families. This agency combines in one the majority of federal programs directed at the well-being of children and families.

Mrs. Barnhart has had extensive experience in the human service field, which includes direct service in a senior citizen nutrition program; advocating on behalf of the mentally ill; working on child and family issues as a legislative aide in the U.S. Senate; administering the Aid to Families with Dependent Children program; and working on a Presidential welfare reform study.

As Assistant Secretary for the newly formed Administration for Children and Families, she oversees programs that include Head Start, ADC, the JOBS program, Child Support Enforcement, the Refugee Resettlement, Child Welfare Services and Social Services Block Grants, and a host of other program efforts that work to provide children and families with needed assistance.

Please help me welcome Jo Anne Barnhart.

JO ANNE BARNHART: I am really pleased that I could be here this afternoon to add to and extend the welcome that I know started this morning from the Administration for Children and Families. I apologize for not being able to be here personally to welcome you.

This conference is an important step in our present research and evaluation agenda that is being considered in many Head Start programs. I want you to know that I strongly support the research agenda and that I am committed to putting the National Head Start Bureau on the cutting edge of research in child development. I know that this is a commitment that Wade shares, probably way before I did, since I have only been involved in Head Start programs since April 15th, and I appreciate the efficient leadership that he has shown as the Administrator for Children, Youth and Families, and look forward to his help in bringing me along in terms of getting through the important work we have to do.

It is my pleasure to introduce my good friend, Charles Kolb, known to his friends as "Charlie." Charlie is currently the Deputy Assistant to the President for Domestic Policy at the White House. He was previously Deputy Under Secretary for Planning, Budget and Evaluation at the U.S. Department of Education from September, 1988 to May, 1990. Prior to this appointment, Charlie served as Deputy General Counsel for Regulations and Legislation at the Department of Education from January, 1986 through September, 1988. He also served at the Office of Management and Budget as an Assistant General Counsel from July, 1983 until January, 1986.

Prior to government service, Charlie practiced law in Washington, D.C. He is a graduate of Princeton University and has a Masters Degree in Philosophy, Politics, and Economics from Balliol College, Oxford University. He received his law degree from the University of Virginia in 1978.

I am pleased to welcome Charles Kolb.

KEYNOTE ADDRESS

CHARLES E.M. KOLB

Deputy Assistant to the President for Domestic Policy

My talk is really going to be "global," because I am going to start with some observations about what has happened around the world during the last couple of years. When you put into perspective some of the things that you are trying to do here, you will see some very strong similarities with what has happened elsewhere in Eastern Europe and Central Europe, in South America, over the last couple of years.

I want to try this out on you, and if we have time for questions and answers I would like your reaction, because I see some parallel themes here. There are a number of critics who have said, "We've got a President in Washington who is very strong when it comes to foreign policy, but we don't see much on the domestic side." Well, since I work on the domestic side, I pay attention to that criticism, and I don't happen to agree with it. So, I want to try and share with you my thoughts about some consistent themes between the foreign side and the domestic side.

I want you to go back in time two years and ask yourselves what thoughts came into your mind when you heard the following words: Estonia, Latvia, Lithuania, Czechoslovakia, Hungary, Poland, Bulgaria, the Berlin Wall, East Germany, Panama, and Nicaragua. Some people might have said, to coin a phrase, "You cannot do it. It cannot be done." Well, something did happen. Things did change. And how did it come about? It did not come about because the people who were in charge of those centralized bureaucracies suddenly decided one day that they had had enough. They didn't wake up one morning and say, "Hey, you know, this has been fun for the last 50 years, but let's give somebody else a chance." What happened was that individuals, who had been fed up, decided to get involved and make choices and to do things a little bit differently.

I don't know about you, but when I hear those words today, I realize that individuals can indeed make a difference. With some degree of modesty, I will share with you that I predicted all of this two years ago. I had the inside scoop on how this was going to happen, and I will share it with you now.

It has to do with my mother-in-law. You see, my mother-in-law is an Estonian refugee; she came to the United States in the late 1940's. She fled Estonia in 1944 when the Soviet troops came in and never went back until last year. But two years ago, my mother-in-law had a young cousin from Estonia come to the United States, to Washington, which is where my in-laws live, and this young cousin, whose name is Henry, was 14 years old. He was a member of an Estonian men's and boy's choir, and he came to give a concert one weekend at St. Alban's school, which, ironically, just happens to be a few yards up Wisconsin Avenue from the Soviet Embassy compound. So young Henry gave his concert and then spent the weekend with my in-laws.

Now, Henry had never been outside the Soviet bloc, only spoke Estonian, did not speak English -- yet I learned some interesting things from Henry. Since he spent the weekend with my in-laws, my mother-in-law, who likes to shop, decided to do the typical "Potemkin village" bit, which is to say she took him to the shopping malls. And young Henry knew exactly what he wanted.

Of course, he wanted to buy a pair of blue jeans, because, if you could find them in downtown Tallinn, Estonia, they cost $120 a pair. But what surprised me the most was that he knew the precise brand of blue jeans that he wanted. And then my mother-in-law took him to a record store. He said he wanted to buy some music cassettes to take back to Estonia. Given the music that he sang at the concert, she thought he might want, well, not necessarily classical, but maybe sort of light-rock stuff, like the Beatles, or maybe Elton John, maybe something as audacious as Madonna. Well, what did this little kid do? Fourteen years old, again, never been to the West. He walks into this music store and says, "I want Metallica." Now, I don't know about your taste, but it is not mine. Friends of mine who have heard it tell me it's hard rock, heavy metal "music." This example was the clue that told me that all was not well in Eastern and Central Europe because if information like this is getting through, then you are not going to be able to stop the ability of individual human beings to make choices, find out about how other people are living, what other opportunities are available to them elsewhere around the world. And pretty soon, when people are armed with information, they will do something about it. Unless you are going to decide to cut out the fax machines, the fiber optics, the telephones, the lights, and live in a 12th-century monastery, you are not going to be able to control the ability of individuals to make these types of decisions. And so, what the experience with Henry told me was that what we were beginning to see with Lech Walesa and others was significant, and real, and lasting, because it was bottom-up, not top-down, and it ultimately -- as I think all of us appreciate now -- made a difference in the governance structure of those countries. I hope I have convinced you that I am on to something, at least on the foreign policy side.

Let me now shift to domestic policy. I would submit to you that something very similar is going on right now in America, not only in education, but in other parts of the domestic politics of our land, and that our President, George Bush, is not only leading in many of those areas, but is also supporting the individuals across the country who are trying to make these things happen. Now, I want to spend a few moments on choice -- because it is one very clear example -- and share with you some thoughts I have about it. Educational choice is very similar to what happened in some of those countries I mentioned. When you have educational choice, you empower individual parents to get involved and make decisions about what is best for their children's education, and you are disempowering, so to speak, the bureaucracy.

Now, I would be curious to know from those of you in the audience who have children who are not in private schools, how many of you can tell me the name of the bureaucrat who decided where your child was going to school? What we are trying to do in terms of promoting educational choice is to turn that around, to make those bureaucrats responsive to your decisions and not to make you responsive to theirs.

One point about choice -- which I find to be an eye-opening point -- is a very simple one. We already have choice in American education -- in postsecondary education. For those of you who went to college, you know perfectly well that either you decided where you were going to go to college, or you and your parents decided where you were going to go to college, and you paid for it either with personal resources or family resources, or you got a student loan or a Pell voucher -- I don't call them Pell "grants" anymore, they are Pell vouchers because they are portable. And I think that one of the reasons why America has one of the strongest systems of postsecondary education in the world is because you have choice and competition. It is very simple.

To share with you one anecdote I saw on a Public Broadcasting System show about a year or so ago: there was a couple from Tokyo living in the United States on the West Coast, and they were being interviewed about what they were going to do for their children's education. And the mother said, "You know, we are going to send our kids, when they grow up, to American colleges and universities, because they are the best in the world, but right now when they are younger, we are going to send them back to Tokyo, because the K-12 system here is not that good." Well, I think that helps make the point.

Just a couple of other observations about choice, which I hope will ring some bells. Recently, I was reading a book by a Peruvian economist named Hernando DeSoto -- he was talking about some of the impediments to market development and individual freedom of choice in some of the South American economies, most notably Peru. What he concluded was that the reason many of these economies have difficulty expanding and growing is that they are basically mercantilist. And what is mercantilism? It is something that flourished, or existed, between the 15th and the 19th centuries. Mercantilism is basically the view that the economic welfare of the state can be secured only by government regulation of a nationalist or centralized character. Sound like a few school systems we know? Absolutely. But, when you think about some of the things we heard--things like pervasive bureaucracy, governmental structures that are law-ridden and that preempt your ability to make choices and decisions, procedures that are basically inflexible, and the people who run the system who are attached to the old order (or what some of us in Washington call the Old Paradigm) -- you basically see the 20th-century version of a mercantilist system that died out elsewhere in the latter part of the 19th century. I would say today that those people who are opposing educational choice are nothing more than latter-day mercantilists, and, over time, given the dedication, the perseverance, the creativity, the doggedness, and the ingenuity of people like yourselves, they, too, will become historical relics.

Let me move on beyond education, because some of these same themes, I believe, are relevant to other parts of what we are trying to do domestically. Take the Secretary of Housing and Urban Development, Jack Kemp, who has travelled all across America promoting things like tenant management and home ownership for the same reasons we are talking about in educational choice: because he wants to empower people to have a greater say with respect to where they live. The same point has been made time and time again with people who own a car versus people who rent a car. If you own something and have a stake in it, you are more interested in it, you take better care of it, you treat it as your own. That is what Kemp is talking about when it comes to housing. And I would add that Jack has been asked by President Bush to chair the Economic Empowerment Task Force. What we are trying to do there is to find antipoverty strategies that work. And one of the ways you do that is to find strategies that will empower people to have a greater say over what is important to them. It sounds simple, it is common sense, and it works.

Now, let's take a third example -- child care. This is very interesting, because it gives you two crystal-clear models of how you can approach public policy. Last year President Bush signed a child care bill, but it was his bill. The competing bill, which did not make it through the Congress, fortunately, was what I would call a top-down, centralized, bureaucratic command-and-control system that would have empowered bureaucrats, set up a whole system of rules and regulations for governing service providers, and ultimately might have trickled down and had some impact on parents and their children. Instead, what we wanted passed was a dramatic expansion of the earned income tax credit. Now, why was that important? Because it put parents seeking child care in charge of the resources. We altered the governance structure, if you will, over how those resources work. By having choice and empowering parents, you put them in charge of the resources, and I suspect that that is what a lot of the Old Paradigm people really fear the most.

Now, let met tick off some other examples. The President, in the State of the Union Address and in his budget, has called for tax-free family savings accounts. We want to empower families, give them greater control over their own resources. I would also argue that the turnback proposal in which the President has invited the governors to work with him to get legislation turning back about $15 billion worth of Federal categorical programs to the States is in the same vain, because, again, we are shifting the governance of those resources away from Washington and closer to you. We are seeking incentives for enterprise zones to help revitalize jobs in the inner cities. We are going to continue to have vigorous enforcement of civil rights, and that is also important, because if you are going to have people exercise choice, you have got to get barriers out of their way, such as people who are standing in their way. So we are, as an Administration, devoted to vigorous civil rights enforcement. We also see crime and safe streets as related. Because what good are choices if you can't walk down the streets to the school of your choice, or once you get

there the parents of the children, or the children themselves, find the schools infested with drugs and violence and disciplinary problems.

I would even argue that two of the other things that the President talked about in the State of the Union address -- term limitations and reform political action committees -- are also relevant. Because by changing things like that, you are trying to find ways for people to actually be brought back into the political process. People. Not special interests, but individuals. And, let us face it, in this country we have a terribly low voter turnout rate. And so some of the strategies that we are pursuing will try and alter that.

In some or all of these things that I have mentioned -- education, housing, child care, the turnback proposal, etc. -- I see a consistent theme. On the foreign policy side, I summarize it under the term the "triumph of the individual," and on the domestic side of the house, I would use a similar term. I would call it an effort to "reinvigorate our participatory democracy." For our country to work, we have to have individual citizens such as yourselves participating and making choices. And, if you are going to participate and make choices, then obviously an issue such as education is fundamental to your ability to exercise those rights as free citizens in a democratic society.

To those people who say that the poor in this country are not smart enough to make choices, I would say, think again. I was on a panel a year or so ago and someone actually said that, that you can't give them choice because they'll make the wrong decisions. Well, I remember a philosophy professor I had in college who said, "You don't have to have a Ph.D. to know that your shoes don't fit and that they are hurting your toes." His point was a simple one: for those economies that are run by quotas and command-and-control centralized bureaucracies that dictate "this year we shall have five million pairs of size five shoes and eight million pairs of size eight" -- well, if you happen to be a six or seven or some other size, you know that the shoe does not fit. And so I reject the notion that individuals cannot decide, no matter who they are. If you say that a parent is incapable of making a decision about a child's education, then where does it stop? Are they incapable of making a decision about a county council member? Are they incapable of making a decision about how to spend their money? So, maybe you should take away those rights. This is the logic, and I reject it because it is fundamentally at odds with what has made this country great.

Therefore, when I compare what I began with on the foreign side and what I have explained on the domestic side, I do see consistent themes. If you look at those countries around the world and what has happened there in the last two years, what you see is, yes, not only did we win the Cold War but, just as important, if not more importantly, those countries are freely adopting our values, our system of decentralized, market-oriented organization and, in some instances, capitalism. It is driven by a fundamental respect for individuals, and we can take considerable pride in knowing that those countries -- those fledgling democracies -- are holding up for all the world and us to see their experiment. They are telling us that we are on to something. And I think it behooves us to show them that we have not lost track of how we became great as well.

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Tuesday Luncheon

Introduction: **Wade F. Horn**, Commissioner
Administration on Children, Youth and Families

Keynote Speaker: **John T. MacDonald,** Assistant Secretary
for Elementary and Secondary Education
Department of Education

WADE HORN: It is my great privilege and honor today to introduce our luncheon speaker, Assistant Secretary John T. MacDonald. As Assistant Secretary for Elementary and Secondary Education since his Senate confirmation in March of 1990, Dr. MacDonald has served as the principal advisor to the Secretary of Education on all elementary and secondary education issues. He provides over-all direction, coordination, and leadership for five major department programs, including compensatory education, migrant education, school improvement programs, and Indian education and impact aid. These programs, whose budget in 1991 totals $8.3 billion, lie at the heart of the Federal effort to facilitate the attainment of the six national education goals as outlined by the President and the governors in the historic Education Summit. Dr. MacDonald received a Ph.D. in Education Administration from the University of Connecticut. He began his career in education as a teacher, moving up to secondary principal at the Groton public schools in Connecticut. For the next years he held posts as Superintendent of Schools in Connecticut and Massachusetts. Before assuming his current position, Dr. MacDonald served as Commissioner of Education in New Hampshire, where he was responsible for a system of a 171 districts and 185,000 students. His other activities include serving as consultant to the National Computer Services Corporation and the U.S. Department of Education, and his many awards include the Northeastern University Citation for Distinguished Attainment and its Outstanding Alumni Award in 1989.

Since that time, he has shown extraordinary leadership and an extraordinary ability to effectively coordinate programs between the Department of Education and the Department of Health and Human Services. We have taken on a very ambitious agenda in that coordination, and I think he may be talking a little bit about that this afternoon. It is a pleasure to have had the opportunity over the last two years to get to know Jack. It is very clear that we share a similar philosophy and outlook about the importance of early education, early intervention, particularly for disadvantaged children. It is just a marvelous pleasure for me to introduce him. Please join me in welcoming Assistant Secretary John MacDonald.

KEYNOTE ADDRESS

JOHN T. MACDONALD
Assistant Secretary for Elementary and Secondary Education
Department of Education

I wish to thank Wade Horn for inviting me to speak to this important Head Start conference. I have been very impressed for the last year and a half by the professionalism and dedication of all the Head Start staff.

I am here today to say to you that the Department of Education is for real in its commitment to collaborating with Head Start. Together, we have a great responsibility to deliver comprehensive services to our nation's young people at risk. At Education, we are placing great emphasis on the readiness goal, and we recognize that reaching it requires the closest possible collaboration. Dedicating the first of the six national goals to readiness is no accident, for it is the key to the other five. As you know, the early years are crucial to a child's development -- cognitive skills, social skills and cooperation with others, being able to articulate thoughts and feelings, self-discipline, self-respect, trust in others, values, knowing the difference between right and wrong, and wanting to do right. These are the years when learning skills are nurtured, values are instilled, and imagination inspired.

Today, many children in their early years live in crisis. What should be a time of joy and love is, for too many, one of deprivation. We meet in the shadow of unprecedented breakdown in the traditional American family -- single-parent households, teenage pregnancy, and households where both parents work -- leaving much less time for childrearing. Many children spend more time under the pernicious influence of television than in the laps of their mothers and fathers. An estimated 19.2% of all children in America live below the poverty level, up from 14.9% in 1970. For Black children in 1988, the figure was 45.5%; for Hispanic children, 37.6% -- both about three times the figures for whites. And the consequences are everywhere to be seen, in our cities, in our schools, and, sadly, in our courts and prisons. The burden of this breakdown of the family has fallen on our social services and our

schools. Another factor I should mention here are the growing needs of children who speak only another language, and the special needs of children with disabilities.

Chapter One, of course, is our largest education program after Student Aid. It has received significant increases in the last few years -- $853 million for fiscal '91, which is a 16% increase over fiscal '90 -- and we expect a significant increase for next year. The latest numbers I have looked at being proposed are in the neighborhood of $1 billion; it ranges between eight hundred million and a billion. The program gained a new vote of confidence in Congress in 1988 with the enactment of the Hawkins/Stafford Amendments to strengthen accountability for results and widen flexibility and implementation. For our part, Chapter One is where we can make the biggest contribution to providing comprehensive services, and I strongly believe in refocusing Chapter One from remediation to prevention.

Early childhood research abundantly demonstrates that early intervention is the most cost-effective use of funds, and the readiness goal is a recognition of the consensus behind that understanding. In the long run, the costs of remediation, special education, welfare, and law enforcement are much higher. One of the many preventive early childhood programs was the Perry Preschool Project which we all remember from the 60s, which enrolled 3- and 4-year old low-income Black children. The long-term benefits into early adulthood were well documented.

We in the Office of Elementary and Secondary Education are engaged in a major effort to urge Chapter One practitioners to use the funds for preschool, as the law clearly permits.

We serve, in Chapter One, about 5,085,000 children, and only about 8% of them are being served in pre-K or kindergarten programs. Last year the figure was 7%. So about 92% to 93% of the youngsters being served by Chapter One, at a cost of $6 billion, are in remediation services, and the tiny, tiny minority are in pre-K or kindergarten. Reorienting Chapter One toward preschool and early intervention is one of my highest priorities as Assistant Secretary. It is what I have been talking about since I have been in Washington for the past 18 months. It is essential that we deploy this major resource to back up Head Start, and we all know that Head Start needs more resources. For even with the important funding increases in the past two years, Head Start will be reaching only an estimated 58% of eligible 4-year-olds. In other words, we have watched Head Start go from $1.9 billion to $2.1 billion.

Head Start's funding increase in a period of severe fiscal stringency demonstrates the Bush Administration's high priority on early intervention. But more is clearly needed. So we have to utilize all available resources to the fullest. And Chapter One's LEA Grant Programs, which received a $789 million increase for this year, will likely be increased again for next year.

Chapter One is only one of the several education programs that can play a role in a comprehensive approach to early childhood education. Our Even Start program, for coordinated education of disadvantaged parents and children, was doubled this year, to $49 million, and we expect it will become a state formula grant program next year when it passes the $50 million mark. Right now we have 324 programs across the country. There is talk about increasing funding for this program to $100 million. The program now serves children ages 1-7 and their parents, with current legislation aimed at moving it to 0 to 7.

Another illustration of how we are pushing imaginative, flexible use of our programs for early intervention is by advising practitioners on how to use Chapter One with Even Start. The law allows Chapter One to be used for children not yet in school, if they reside in Chapter One attendance areas and are educationally in need. Thus, Chapter One can be used to meet the goals of Even Start. My point is that we have considerable resources that we are beginning to pull together more effectively, and you can buy into Head Start services using Chapter One resources or Even Start resources, so you can pull the three programs together. That is something we have not done before; bringing together Chapter One directors, school superintendents, early childhood advocates, early childhood providers and saying, think about what you can do with these dollars differently than we are doing now. The message we are carrying to them is the fact that we should not be backloading the system with remediation, but frontloading the system with early intervention.

We have also proposed increases for the special supplemental food program for women, infants and children (WIC), as well as immunization grants. Recently, I signed a memorandum of understanding with the Department of Agriculture to use our Migrant Student Record Transfer System to identify more migrant families that could be eligible for WIC Health and Nutrition services.

One of the other concepts we are talking about nationally is what would happen if we had another Memorandum of Understanding with the Even Start program. This could be utilized to identify more needy children and their families that are eligible for work services. If we built that into our Even Start proposals we could generate even more comprehensive services than are currently provided. That is how closely it runs parallel to Head Start, without the income criteria.

We are also urging practitioners to employ Chapter Two, the most flexible of all of our programs in early intervention, in combination with Chapter One if necessary. For example, if a school finds some children coming in with serious deficiencies, it can use Chapter Two resources in a preschool setting for preventative purposes. One example is the HIPPY program (Home Improvement Program for Preschool Youngsters). Mothers are trained as teacher aides, and they visit homes of other parents once a week to provide lesson plans, language development skills, and other special assistance. Chapter Two can be used to provide direct services like this, or it can be used in conjunction with Chapter One, or Even Start, to expand on Head Start or other types of preschool opportunities.

Collaboration is essential, both because we have to pool limited resources and, of course, because of the comprehensive needs of young children. Poorly nourished, unhealthy children are not ready to learn. Rather than work in isolation, as they have so often, health and education service providers need to work together.

The National Health Prevention and Disease Prevention objectives, whose target date is also 2000, thus are directly related to the readiness goal. In fact, more than half of its 320 objectives address matters such as national health, child immunization, and nutrition. Another key health initiative that promotes education attainment is the Surgeon General's Healthy Children Ready to Learn initiative, which we have been participating in actively since its inception.

Many organizations are working on early intervention, yet they often work in isolation or at cross purposes. At the Federal level, we are trying to set an example on collaboration. We formed a task force with Health and Human Services last year. We have got Labor actively involved now with Comp Ed and with our migrant programs and our migrant Head Start programs. Thus far, Wade and I have sent a letter to Chapter One and Head Start practitioners across the country outlining detailed suggestions on collaboration, especially on improving transition between Head Start and elementary schools. These suggestions have included insuring transmittal of information about children, including their health records, holding meetings between preschool and elementary teachers to discuss the needs of each child, and encouraging collaboration among teachers and parents in the planning of developmentally appropriate curriculum. Abundant research has shown it crucial to recognize children's different learning requirements. We must not fit children like pegs into a rigid curriculum. Rather, the curriculum must adapt to the needs of the child, taking account of his individual stage of development.

Schools must be ready for children as children are ready for school. That is why I oppose for young children the widespread use of standardized tests, unduly demanding curriculum, kindergarten retention -- all retention for that matter -- and delayed school entry.

As noted by our June, 1991 paper on readiness, prepared by our department with the assistance of Health and Human Services and Agriculture, learning occurs as children interact with people and respond to the world around them. It is an active, dynamic process. That document has been readied for distribution here.

We have developed a position statement on the readiness goal, broken down by objective. It is the first time the department has come out with a position statement on any of the six objectives. This is the one we think is the most crucial -- at least this is the one I think is the most crucial. The title of it is "Preparing Young Children for Success, Guideposts for Achieving our First National Goal." I hope you enjoy reading it and enjoy what we have to say and the stand that we are taking, particularly in relation to developmentally appropriate instruction and the other two objectives. I hope the statement it makes is one that you will find supportive. I think you will.

Learning for young children, in my view, does not come from taking tests. In stressing a developmental approach, I am relying on many resources, such as the 1987 report, Developmentally Appropriate Practice, by the National Association for the Education of Young Children. I hope you will all have the opportunity to peruse the National Society for the Study of Education's ninetieth yearbook, The Care and Education of America's Young Children which has been very well put together by Lynn Kagan.

Among our other joint activities: last December we held a transition conference of urban educators, schools, and Head Starts here in Washington. The exchanges were most valuable in clarifying differences, as well as common areas of concern. We found that in some cases, Head Start and school officials do not even know one another. Some Head Start officials feel they are treated as second-class persons by school personnel. I recognize the serious barriers that exist because I have been around this business long enough to watch these things evolve over the years. These involve competition for resources and different program focuses -- comprehensive services for Head Start, academic instruction for schools. They also include much stricter regulations for Head Start, lack of communication, and different operating procedures. These barriers are serious, but there can be no place for turf battles, only common ground issues, if we are to meet our responsibility to the children. I assure you of my commitment to insuring goodwill and an outstretched hand from school officials as we work on improving collaboration and transition.

I think the Federal government can play a strong role in encouraging such collaboration. The 1990 Child Care and Development Block Grant Program urges states and localities to conduct comprehensive surveys of community resources and needs. This should lead to improved coordination of existing resources. Another way we can improve coordination is by monitoring results, thus aiding accountability. We can publicize how well schools, their parents, and their preschools are providing children with experiences in the services they need.

Our task force will hold a follow-up session on transition in the fall. We are also planning a special conference on transition for elementary principals. We hope to have Willie Epps, Project Coordinator for the St. Clare County Illinois Head Start Program, make a presentation on how true Head Start school transition can be achieved.

Collaboration also is important because we can learn from each other's programs. For example, greater parental involvement is one of the three objectives of the readiness goal. Head Start, for many years, has sought to involve parents in the design and implementation of policies, and I would like to see schools draw on this model.

We also need greater and earlier assessment of the needs of children, especially the disadvantaged. This is more difficult for children not yet in school, but schools, public health, and social service agencies ought to develop standardized techniques to identify these children. They can draw on information networks developed under the Individuals with Disabilities Education Act. These

networks of personnel from hospitals, Medicaid programs, state and local social service agencies, and individual pediatricians exist to identify preschoolers in need of special education services.

I am excited about this conference, and I again thank Wade for inviting me. I greatly appreciate the opportunity to be here with you today. Our work together is devoted to our nation's most precious resource -- the minds and spirits of our children. We now have a strategy on goal attainment, America 2000, the thing that you have heard about since April 18th, which is the present strategy to reach the national goals. It is the first time I have seen a cohesive yellow brick road out in front of me. It is going to require our united efforts. Remember, the year 2000 is only eight and a half years away, and the needs of our children are more than considerable and demand our attention and our action.

Plenary Session I

Head Start's Future: The Challenge for Research

An analysis of the early years of Head Start, with a critical look at early research and evaluation, will be presented. New directions and top research priorities will be identified.

Introduction: **Soledad Sambrano**, Project Officer
Administration on Children, Youth and Families

Chair: **Martin Gerry**, Assistant Secretary for Planning and Evaluation
Department of Health and Human Services

Presenters: **Edward Zigler**, Sterling Professor of Psychology
Bush Center in Child Development and Social Policy, Yale University

Lois-ellin Datta, Vice President for Research
Human Services Foundation, Nashville, TN

Julius Richmond, John D. MacArthur Professor of Health Policy Emeritus,
Children's Hospital Medical Center, Boston, MA

Sheldon White, Professor of Psychology, Harvard University

Discussant: **Christopher Cross**, Executive Director -- Education
The Business Roundtable, Washington, DC

SOLEDAD SAMBRANO: We are pleased to have with us this morning a most eminent panel, which will provide an analysis of early Head Start years. It is an honor to introduce the Chair of this plenary session, Mr. Martin Gerry, Assistant Secretary for Planning and Evaluation at the Department of Health and Human Services. Mr. Gerry was nominated by President Bush in November of 1989 and was sworn in on February of 1990. As Assistant Secretary for Planning and Evaluation, Mr. Gerry is the HHS Secretary's principle advisor for the formulation and analysis of policy. Mr. Gerry has a law degree from Stanford University and practiced law in New York prior to joining the Department of Health, Education and Welfare in 1969, where he was assistant to secretaries Elliot Richardson and Caspar Weinberger -- two strong advocates of Head Start.

MARTIN GERRY: It is a pleasure to be here, especially with such a distinguished panel. I would like to briefly talk about the topic and its implications for the Administration, as well as the nation as a whole, and then quickly move on with the program.

It is obvious that this is a particularly important time to be talking about Head Start's future and to be defining the challenge for research. We have had and will continue to have a major expansion of the Head Start program. We have had and will continue to have a lengthy and important debate on the future of American education as a whole. The linkage between Head Start and education has been, and remains, a crucial question and a crucial enigma in terms of American educational and social policy. I am sure that we will be talking about that in many ways today.

One of the dangers of popularity -- and Head Start is one of the most popular domestic programs -- is a tendency to relax in terms of the rigor of research. That is a danger that nobody on this panel is willing to let happen. I think it is important that we pause as we go through this critical expansion to talk about the quality of programs, the impact of programs, and the ultimate outcomes of programs on children and families.

The Head Start program is one of the most important dimensions in making communities places where children will learn. The insight that we can gain in terms of the holistic needs of children and families has perhaps been best demonstrated by the Head Start program -- the importance of clustering services to create a kind of critical mass of support, rather than seeing each type of

service as a neatly fitting linear component. We have evaluated most other programs -- education programs, health programs, child welfare programs -- as if they themselves, individually, in a linear fashion, will make a measurable difference in terms of global outcomes. We know, in fact, that is not the way the world works; it is not the way children or families really are. To me, Head Start represents, even apart from its own success, a major model to be looked at in terms of the integration of services in a holistic way.

Our first speaker is Dr. Edward Zigler, Sterling Professor of Psychology at Yale University and the founder of the Yale-Bush Center in Child Development and Social Policy, and obviously one of the founding fathers of Head Start.

EDWARD ZIGLER: I am always very comfortable when I am at a Head Start event because I am one of the oldest living Head Starters. Clearly, to chart the future of Head Start research, we must recall the past. So, let's go back to 1965 when, believe it or not, there was something of a controversy among the planning committee whether to evaluate Head Start. I can still remember that discussion. Because it was a six-or eight-week program, giving some health care, but primarily a good, pleasant experience for children, what was there to evaluate? This controversy went on for a bit, and then there was a hero who decided, yes, Head Start would have an evaluation, even in that first summer. That person, who was paramount in cutting the Gordion Knot, was Dr. Julius Richmond. Dr. Richmond, who is about the wisest person I have met in my life, said that no program as large as this should go unevaluated. Ed Gordon came on board to be the first research director.

If you are going to do an evaluation you need measures and instruments, and we only had a few weeks to get it going. So Dr. Richmond commissioned me to gather together some Yale graduate students, and in a matter of about two or three weeks we put together a number of measures. I wish I could tell you how well we did that first summer on evaluation, but honesty prevents that. Let me state for the record, in case you don't already know, that the summer 1965 evaluation of Head Start was an absolute and total disaster. We tried to do too much. We tried to do it too fast. However, it is a tribute to how far in the future Julius Richmond sees, that what was important and what he made happen was that we established the principle in that first summer that evaluation would be an integral part of Head Start. And it has been ever since.

Now, I am a researcher of sorts, but I must confess to you that I was not always convinced of the merits of the evaluation of Head Start. Research has turned out to be a mixed blessing for Head Start. In fact, twice, research almost led to the end of Head Start. The Westinghouse Report of 1969 was devastating. I spent most of my time in Washington heading off implications. Maybe you remember the opening sentence of Jensen's monograph, "Compensatory education has been tried and it has failed." On a personal level, an even sadder episode was the 1974 report by a man whom I truly love, admire, and respect, Urie Bronfenbrenner. This is where we got the "fade-out hypothesis." Adding to my chagrin is that the report was commissioned by one Ed Zigler. In a way, it is a tribute to Urie's honesty -- looking at data, calling it as he saw it. We needed more data. We got more data. And research ultimately saved Head Start and led to its expansion. The Cornell Consortium data were central, and Irv Lazar did such a wonderful job leading that effort. Then we had further longitudinal studies -- the Ypsilanti and Syracuse groups and others. Then we got the Philadelphia study, which was on a Head Start population. As a result, there is indeed a current consensus that high-quality, and I emphasize high-quality, programs in the early years have long-term effects. Nobody is arguing that point any further. I think the evidence is rather clear.

The central research issue of the 90's will unquestionably be, "What mediates these effects?" For developmentalists like me, and others in this audience, it is an intriguing idea to take a child at the age of 4, give him a half-day experience for one year, and then 15 or even 20 years later discover effects. How? What mediates them?

I think there are three major hypotheses that we have to investigate. These hypotheses are not mutually exclusive. The first I have labelled the snowball hypothesis. The notion is that you take a child at four, give him certain experiences, and as a result he is somewhat better. He shows up at kindergarten somewhat better than he would have been had he not had that experience. Then, the kindergarten teachers interact with him in a more constructive, positive way, and he goes on to the next grade even somewhat better -- and so you have the snowball effect. This eventuates in the kind of high school findings that Dave Weikart and others have found. My reading of the "Changed Lives" monograph indicates that the snowball hypothesis is championed by the High/Scope group.

The second hypothesis is that it is not what you do with the children at all, but that the mediators of the long-term effects of early intervention are the parents. That, as a result of their interaction and involvement with Head Start, they become better socializers of their children. They provide a different growing-up environment. This point of view has been championed by my colleague Victoria Seitz and others. We get some support for the second hypothesis from the Sally Provence Project in New Haven. We get further support for this in Faith Lamb Parker's dissertation, which shows how parents change as human beings as a result of early engaged interaction with the Head Start program. There is a further test of the parent hypothesis I wish we could do. That is, if the parent hypothesis is correct, it means we have been underestimating the impact of Head Start from its inception because all we have looked at are Head Start children. But, if we change the parents, then we ought to be looking at not just Head Start children but the other siblings in the family who may or may not have had Head Start. If the parents are more optimal socializers, we should also find effects among siblings. Very little of that research has been done and much more should be done.

The third hypothesis is that what mediates the long-term effects is health -- that if you could take young children, who would otherwise be ill later in life, give them some health services, that may be, certainly in Head Start, the mediator.

However, some words of caution: Let us not undersell Head Start; let us not oversell Head Start. The amazing thing to me is that you could do a half-day one year and get all these long-term effects. But do not make more out of them than you should. The fact is that you do not make economically disadvantaged children look like middle-class children through a half-day experience in one year in their lives. The Head Start follow-up studies indicate that, in absolute terms, even the children who have had good, high-quality early intervention really are a far cry from what we find in middle-class individuals. We have the Montgomery study that indicates this very clearly.

The research indicates to me that quality is the key. Our long-term effects will not eventuate unless each and every program is of high quality. We don't begin to put the kind of money into each Head Start child as the Ypsilanti people put into the children in their program. There is some debate about the current quality of Head Start. My own reading -- and I have been a close observer of Head Start for 25 years -- is that there has been, on average, a deterioration in the quality of Head Start. We have to remember that from day one, Head Start has never been a uniform program. It has been characterized by heterogeneity. Some centers are absolutely superb, some are mediocre. It would take great courage on the part of people who manage Head Start, but, clearly the kind of research we ought to be doing is comparing programs that are enriched, that represent high quality, with programs that have the Head Start label, but are really mediocre. What more do we buy? How much is that investment and what is its cost effectiveness?

Back in 1965 we had the idea that you could take children out of poverty, grinding poverty, put them into a program for six or eight weeks, and they would be forever wonderful. That makes no sense. It is difficult to change the growth trajectory of the child. We ought to be looking at different forms of interventions. Certainly we ought to be looking systematically at the difference between one year of Head Start versus two years of Head Start. Thanks to Senator Kennedy we have a very good demonstration with ACYF now; namely, the Transition Bill. What we have missed is the continuity in children's lives. Look at that transition between Head Start and school. Follow up Head Start with a program in the schools. What we really ought to be looking at is, what does a real intervention that varies by the age of the child and dovetails year by year look like? Let us have children have Head Start, then let us work on the transition, and then let us follow Head Start with three more years of intervention. Looking at those kinds of models would be very important.

Also, we have to start even younger. We had the wisdom under Dr. Richmond's leadership to start parent and child centers right after Head Start. Three or four may be too late. We should get in there at birth. The Comprehensive Child Development Centers being administered by ACYF are an important new vehicle for looking at what difference simply adding more years might make.

I will just leave you with one final piece of research that I charge ACYF with taking on. That is to look within your own house and your own administration of Head Start. Head Start once had vibrant regional offices where the community representatives were an important resource. They went into centers to help them with their work, making sure that the quality was high. Now, regional office representatives probably visit Head Starts once every five years on average. That is not enough. Regional offices do not have the money for the community reps to travel; to be the kind of supportive people they once were. This was integral to the success of Head Start. Why don't we begin doing research with the cost effectiveness of giving travel money to community reps so they could do the supportive work that is necessary? To me this is just part of administration; not always saying how great you are, but actually seeing how you could become better.

I wrote a chapter in my first book on Head Start, The Legacy of the War on Poverty, called "Head Start: Not a Program, But An Evolving Concept." I think one of your great strengths, our great strengths as Head Start people, has been that we have not stood pat. We have asked ourselves the tough questions. We have tried new important efforts. We keep changing, we keep growing, just as we hope our Head Start children will keep changing and growing. Over 25 years, I think we have done a decent job. But I call upon you today to do even better.

LOIS-ELLIN DATTA: The image that comes to mind of Head Start and research is that of the informing vine. The informing vine, I am told, is what wine-grape growers call the main stem whose characteristics animate and infuse, but are not identical with, those of the bearing vine.

RESEARCH AS HEAD START'S INFORMING VINE: In the 1960's, research animated Head Start in three ways. Research prepared the way for the creation of Head Start. Researchers' voices were heard during program design. Research was to improve Head Start and be stimulated by it, compensating for its vulnerabilities due to extrapolation.

Preparing the Way: Four strands of research created a climate of belief in which Head Start was so sensible, it was almost inevitable. One strand was the body of research heightening our awareness of poverty in our post-World War II land of subdivisions and supermarkets -- a strand perhaps best exemplified in Harrington's The Other America (1962). Another strand came from the many developmental studies drawn together by Bloom (1964). His main conclusion, that much of the difference among adults in intelligence test scores could be predicted from scores at around age 6, was cited widely as evidence that 75% of capacity to learn is formed in the first six years of life. A third strand brought together research on the relation between intelligence and experience. Hundreds of studies were discussed, for example, by Hunt (1961), whose strong message was that poor environments, rather than defective genes, caused the differences among ethnic, racial and income groups in measured intelligence. The fourth strand came

from efforts to change achievement by giving disadvantaged children some advantages: the programs of Bereiter and Englemann, Caldwell and Richmond, Gray, Karnes, and Weikart, among many others. Varied in approach, most of these studies showed it was possible to improve the competence of poor, preschool children in a relatively short time.

Together, these messages from research said that many children were poor; that poor children were at high risk of school failure; that the preschool years were exceptionally important in the development of intelligence; that the lesser performance in school of minority children and poor children was more a matter of advantages than of biology; and that preschool intervention programs could help these children get a fairer start in life.

Program Design: Research animated and infused Head Start in the mid 1960's during its gestation. Researchers were among the inner circle of planners who designed the program. They spoke for themselves and from the findings of research, fitting this opportunity for children into the Office of Economic Opportunity framework. These researchers included Urie Bronfenbrenner, Edmund Gordon, and Edward Zigler, and, I believe, at various times, Bettye Caldwell, the Clarks, Robert Hess, Eleanor Maccoby, and Sheldon White. What emerged from their debates was something quite remarkable, certainly based on all the research mentioned, but going beyond it in a special way.

The special way was the insistence on Head Start as a comprehensive program, seeing the child as a whole, and as an ecological program, involving the child's total environment. "The child as a whole" meant that the program would have to meet each child's individual medical, dental, nutritional, and developmental needs. Developmental needs were thought of as including cognitive, linguistic, motivational, and social-emotional dimensions. With regard to an "ecological program," Head Start, from the beginning, saw the child in the context of the family, which meant parent education, social services, opportunities for parents to advance economically, and other family supports. It also meant that Head Start was placed in the context of community development, which included establishing linkages between Head Start and many community services, and empowering parents to be systematically and meaningfully involved in decisions affecting their children, their lives, their programs -- maximum feasible participation, if you will. Lastly, in this design, Head Start was to be a framework, with a floor of common features, within which adaptations to the thousands of local cultural, linguistic, economic, and political settings would be expected.

Compensating for Extrapolation: The third way in which research animated and infused Head Start was in the early recognition of the need for new knowledge. The researchers acknowledged that their counsel and the design were extrapolations from research to what ought to work. There simply was no existing prototype, pilot, or demonstration with all of Head Start's features. Even the pioneering programs for low-income children barely scratched the surface of the diversity of children and families to be served by Head Start, so generalization was another source of uncertainty. This was both the glory and the vulnerability of Head Start. The researchers had their disagreements, including disagreements on the soundest way to proceed with research, but seemed united in stating the necessity to learn as we went forward. From the beginning, the expectation was that research would be concurrent with practice. Hunt (1966) put it well when he wrote:

> We of the behavioral sciences still have a long way to go where early child care and education are concerned. We . . . have . . . a justified hope. If we will follow the leads of data from scientific experiments . . . and from the evaluations of promising practices . . . we shall learn how to compensate children of the poor for their lack of opportunity, . . . if our impatient society . . . does not lose hope and faith too soon.

THE NOURISHMENT OF RESEARCH: The researchers who participated in Head Start's design also influenced how the new research and evaluation were to infuse Head Start. The main responsibility rested in a national network of 12 Head Start Research and Evaluation Centers. These centers were intended to attract the best and the brightest among university-based developmental researchers to a tri-fold task.

The centers were first to design the national evaluations of Head Start, to collect the evaluation data, to analyze the results, and to write the reports. This was their evaluation hat. In return for the autonomy lost in such an effort, each center would regain an amount of money for unrestricted research equal to its evaluation budget. Within the broad guidelines that the research should be on or relevant to Head Start children, families, and communities, it could be spent largely at the discretion of the center director to carry out the second task of knowledge creation. The third task was to make the centers magnets for scholarship within the universities, attracting seasoned researchers and developing a new generation of scholars whose careers might focus on Head Start and the rescue of low-income children from the developmental consequences of poverty.

Administratively, Head Start invested in a full-time national director of research and evaluation, a full-time director for research, and a full-time director for evaluation. Together with a secretary and two research associates, this was quite a commitment to research in a national office that totaled about 100 people. Further, the director of Head Start and top leadership were bears on utilizing research and evaluation. For example, up-dates on new findings were sought not only at regular meetings, but also frequently and informally as decisions were being made. Top leadership gave research a prominent place in special sessions at national and regional conferences, in Head Start publications, and in the priority of research in their own speeches. The enterprise and Head Start also had the continuing support of a standing committee of distinguished researchers and evaluators. This committee met regularly to review the status of projects and recommend future studies.

In 1968, Head Start funded five invitational conferences on key issues affecting low-income children. The papers prepared for each conference were to summarize what was known about a topic, to identify the leading-edge ideas, and to recommend

priorities for research. The results of these conferences were published as "Critical Issues in Research Relating to Disadvantaged Children" (Grotberg, 1969). The main recommendations, which Head Start hoped would inspire other agencies and the foundations, as well as launch its own research grants program, called for studies of motivation, of the diversity of Head Start populations, of health and nutrition, of family life, of classroom management in preschools and primary schools, and of the role of teachers in interventions. In the area of diversity, for example, priorities included research aimed at new models of: 1) readiness to learn in subpopulations in terms of skill sequences; 2) instructional sequences optimal for diverse subpopulations; 3) child profiling, considering diverse culture, geographic, and linguistic groups, many psychoeducational dimensions, and many process variables such as childrearing practices; and 4) a longitudinal study of diverse disadvantaged children after early interventions.

WHAT HAPPENED NEXT? The aftershocks of the negative and flawed Ohio/Westinghouse report, published June 12, 1969, on how Head Start children fared in the first, second, and third grades, meant that business as usual was not possible. For over a decade, Head Start did not receive even the usual incremental funding needed to keep pace with cost-of-living increases. In the inflationary 70's, this meant a notable erosion of purchasing power, made all the more difficult by the mandate to close down the summer programs and fund the more expensive full-year programs. Further, Head Start rather suddenly went from great success status to being on the endangered species list. As part of its struggle for survival, a fight greatly aided by parent groups, Head Start became a venue nationally for experimental programs to find more efficient or effective ways to serve children and their families, such as Home Start and the Child and Family Resource Program.

A high-profile effort was initiated to develop competency-based certification ladders, an effort consistent with one of the 1969 research priorities and way ahead of its time in the teacher certification field. Other initiatives included establishing a quality assurance process with the goal of making sure all programs would meet reasonably high standards of excellence; integrating handicapped children into Head Start; and improving the transition between preschool and primary school. Further, between 1969 and 1975, great effort went into the Head Start/Follow Through Planned Variation experiment. This was intended, from an array of over 21 approaches, to find out what developmental program experienced from preschool through third grade would have the best staying power, for which children, on what outcomes, under what situations. All the children also would have the basic, required Head Start comprehensive program extended upward to the first three grades.

For many of these initiatives, money was needed not only for the project, but also for state-of-the-art evaluations. To help get the money, the 12 Head Start Research and Evaluation Centers were phased out, and with them one source of Head Start research support. While some discretionary research funds were available, the 1969 research agenda could not be realized, even on a modest scale, at the Office of Child Development.

Administratively, too, the research function was phased out of Head Start. Or, more accurately, it could be said to have merged somewhat with the evaluation function. At least some of the Head Start evaluation activities of the 70's and 80's had research-like components. One example is the work of Rand, under Senta Raizen and Sue Berryman, to operationalize the concept of competence. It was hoped that the concept, elaborated fully, if coupled with reliable, valid, feasible measures, could replace the focus on intelligence and on achievement test scores for Head Start children. Another research-like project, led by Ruth Hubbell, yielded two comprehensive meta-analyses of the research and evaluation findings on Head Start and low-income children and families. This was among the first meta-analyses to use two independent methodologies -- one, quantitative estimates of effect sizes, and the other, qualitative, on the same set of studies.

These contributions to knowledge about low-income children merit recall. Nonetheless, research, in the sense of the 1969 vision, did not flourish at Head Start as a funding agency or as a bully pulpit for many, many years of drought. Successive Commissioners of the Administration on Children, Youth and Families, who were not themselves researchers or attuned to research as an ally, did not put high priority on Head Start research. Further, these Commissioners often were grappling with other issues, including a budget whose purchasing power did not exceed that of 1968 in constant dollars until 1988. Only in the past few years has the informing vine of research been nourished by Commissioner report.

MORE RESEARCH IS NEEDED: Why did Head Start's budget increase at last? Research made the good difference. Chilled by one evaluation in 1969, it was revived in the 1980's by some remarkable longitudinal studies. These followed up into young adulthood the participants in those pioneering programs of the early 1960's, where true controls or adequate comparison children also could be traced. This new body of research showed that some early childhood intervention programs could have long-term benefits for low-income children. The test scores gains largely faded out by the end of the third grade or leveled out at the low percentiles. However, among the benefits sustained, were decreased placement in special education classes, increased age-group promotions, increased high school graduation, increased post-secondary school attendance, decreased tangles with the criminal justice and welfare systems, and decreased births to unwed teenagers (Weikart, 1974; Lazar & Darlington, 1982). Although the most dramatic benefits did not come from regular Head Starts (possibly because control groups were unavailable for Head Starts), and although it was and still is unclear what had mediated these benefits, the findings were taken as strong evidence of Head Start's value. "Head Start works" replaced the sound bite of "Head Start failed." Thanks to these studies, coupled with a marvelously strong administrative showing,

untainted with the mismanagement that flawed some anti-poverty efforts, Head Start became the stellar example of a cost-effective government program for low-income children.

Nonetheless, more research is really needed. The other side of the coin of high enthusiasm is high, perhaps unrealistically high, expectations. Due in part to the long dry spell in research, Head Start is perhaps more vulnerable than ever to the risks of extrapolation and over-generalization. The world has changed, the children have changed, and the demographics have changed in ways already affecting Head Start.

The World Has Changed: First, almost a generation of knowledge about child development in Head Start context has been lost. Much relevant research has been done, funded by other agencies and more abundantly by foundations, but it has been done by other, usually older, populations, or of different settings, or as a relatively modest part of a different question. For example, the Mott Foundation supported a long-term, multi-site series of rigorously evaluated demonstrations on too-early childbearing. The focus is on teenage mothers, however, and, understandably, data on the children are less developmentally rich and are not Head Start specific. The findings are surely useful as Head Start reviews its outreach, parent education, and parent involvement approaches of teenage mothers and fathers. This is not the same, however, as having developmental studies, leading to prototype programs, tested in the Head Start milieu, on which Head Start-wide policy might be based. And almost all the longitudinal data come from programs carried out in the 1960s. Many social changes since then, such as the implementation of least restrictive environment and IEP guidance of P.L. 94-142, could affect such issues as analyses of savings from fewer placements in special education, shifts from federal to state and local leadership, shifts to minority domain in large city politics. These changes could require rethinking community action assumptions.

The Children, Their Families, and Their Communities Have Changed: The world of Head Start children in the 1990s differs in almost earth-shaking ways from the world of children on whom earlier knowledge was based. Too many low-income babies are now born damaged. They have organic brain defects associated with the risks of low birthweight, and they have been assaulted in utero by mothers addicted to crack, cocaine, and alcohol. Both research and experience are indicating how terrible the dimensions of this tragedy are in the attention deficits and explosiveness that make these children dangerous to themselves and others and exhaustingly difficult to manage, in the physical stigmata that set them apart, and in the apparently life-long nature of the problems. Further, many children will never experience a strong family. Thousands are born each year to unwed mothers, some of whom are babies themselves, who may be grandmothers in their 30s. Many, many more will experience the stresses of parental divorce, separation, and desertion. To many analysts, strengthening the family's ability to carry out its traditional functions is the burning policy issue. And last, but not least, many children and their families live in neighborhoods so racked by violence that children are horribly likely to be shot -- and to be doing the shooting.

Demographics: Thirdly, whether melting pot or tossed salad, the demographics of race and ethnicity are changing rapidly. A vastly higher proportion of Head Start children will live in cities and states where former minorities are the majority. A vastly higher proportion will come from homes where Spanish is the dominant language. And a vastly higher proportion of Head Starters will be children of first-generation immigrants from many politically and economically troubled countries, with all that this can mean in diverse parental goals for assimilation or cultural separatism. The linguistic diversity in some Head Start populations can be an opportunity to give all children the multi-lingual fluency so advantageous to children in many other nations. For many Head Starts, it will be a challenge to mesh Head Start linguistic policy sensibly with local school policy and the wishes of the parent.

The research needed to keep up with the changing world and to guide new Head Start policies, practices, and training is vital to Head Start's future. Much will be expected of this once-again popular program, and it will need to deliver. Unless Head Start itself funds some of these studies, they may be carried out on handicapped children through the Office of Special Education, on elementary and secondary school children through the Office of Educational Research, on children in homeless, alcoholic, and drug-abusing families through National Institutes, on military air traffic controllers and tank gunners (as was the case in the 1980s for research priorities in complex cognitive skills), but not on Head Start populations and programs themselves.

OBSERVATIONS FROM AN EARLIER VINEYARD ON THE CULTIVATION OF RESEARCH: Assuming a revitalization of Head Start research, some observations from the past might be useful for future research management. These include lessons about center management, nourishing individual awards, the intricacies of collaborative research, the importance of commitment to excellence, the benefits of studies that get ahead of the power curve, and the urgency of building in utilization from the beginning.

Oil and Water Do Not Mix Well: The Head Start Research and Evaluation Centers had a mixed record. They would have been phased out, I think, regardless. One flaw was that the evaluation functions were not well-stated in a cross-university committee-of-equals. Probably any group would have collapsed under a schedule that called for concurrently analyzing and reporting last year's data, collecting this year's data, and planning next year's evaluation. Another flaw was that the research was of uneven quality and quantity. Some centers produced a fine array of research, whose quality was reflected in its selection for referred journals and invitational conferences. Other centers, with some money, produced nothing.

There are now many thriving social science research centers, yielding coherent bodies of work on specific issues, serving as magnets for seasoned researchers, and training a new generation of fine scholars, as initially hoped for by the Head Start planners. The Harvard Center on Family Studies, the Bush Center at Yale, the Frank Porter Graham Center at North Carolina, and

the Learning Research and Development Center at Pittsburgh are just a few among many that researchers probably would consider exemplary. We have learned, however, much about the management of centers since 1965, including the value of open competition, of clear mission statement, of scaling awards to match proposal quality and institutional capacity, of three- to seven-year commitments for awards, and of peer review proposals, of progress, and of products.

Individual Grants: We have learned, too, about the management of individual grants. We know, for example, of the need for a good balance between structured and more open-ended opportunities. We have seen the benefits of foundation models for maintaining contacts between funding agencies and the field, with their greater emphasis on recognition of a really first-rate idea (with proposals later reviewed formally by experts), relative to specification in advance of what is sought. And we have seen the value of approaches such as "invisible colleges" which bring together individual researchers working on a topic. Such a college was crucial, for example, in advancing the effective schools and effective teacher research that now infuses many school systems.

Romancing Collaboration and Cooperation: We have been enlightened in the past decades about collaborative and cooperative research and about the involvement of stakeholders in research affecting them. These have become politically correct terms that glide down the cortex like Jello but actually involve remarkably complex attitudes, skills, and tradeoffs. The days are long gone, of course, when a researcher could call up a Head Start director or school principal and get access to children. Stakeholders are keenly aware of the opportunity costs of participating in research, of the risks involved in reactive procedures, and particularly of how findings are going to be used. Early research sometime stumbled in ways later research can avoid. There is, for example, a rich literature on conducting collaborative research with teachers and academics as partners. There is an even more extensive literature on a theory and practice of stakeholder involvement. And some professional associations' codes of ethics spell out requirements for participant involvement in research. Clarity early on, for example, on how final decisions will get made, on what questions will be investigated, on what methods and measures get used, on who will write and who will review reports and how dissent will be made public can help avert messy situations. So can realistic planning about increasing costs, increasing time, and possible delays as one goes from the "informed consent" mode to the "full and equal partner" end of the participation spectrum. Even as seemingly simple a decision as paying experimental and comparison groups for their time and expenses can have repercussions beyond money. Head Start leadership can now draw systematically on this literature in preparing guidelines for proposers and in reviewing applications when partnerships are desired.

Excellence, First and Last: Another lesson learned is the importance of a commitment to excellence in research. This starts with assuring a fine, fresh flow of first-rate scholars who are, and are seen by peers as very able researchers, into research management units of an agency, perhaps through three- to five-year contracts. It continues policy-level determination to search out, nurture and encourage diverse researchers so that excellent proposals are received from white males in the Northeast and many other groups and areas, and only the best are funded. A commitment to excellence requires a rigorous separation of the political and the scientific. Politics may set an agenda of issues, but the research process -- from spreading the word on opportunity to apply, through proposal review by scholars distinguished for their own excellence, to merit as the sine qua non for an award -- should be purer than Caesar's wife if the best researchers are to trust an organization. Such a commitment is a two-way street. The research community has responded in the past to good faith efforts by an organization by bringing its best ideas there, and it has given generously of time and effort when years are leaner. If Head Start is to be a leader in research on low-income children, the researchers themselves, as well as the agency, will have to play by the same rules.

Getting Ahead of the Power Curve: Research is utilized for many reasons, one of which is that results arrive in time to inform an issue before minds are made up. Head Start's research priorities have been expressed in a 1990 blue ribbon panel report, and in the 1990 and 1991 research grants announcements. They are similar to those called in 1969, and thus are somewhat loosely connected to current and emerging issues in children's lives. Perhaps the intent is to subsume these issues under the broad call; perhaps the decision was to go for the perennial question of what works best for whom and for how long, rather than sowing the flowering annuals among research topics. Also missing are the newer types of prospective research that could inform management decisions Head Start leaders will have to face. These might include the language development guidance that increasingly will be needed in the border states; how Head Start will deal with problems of crack among parents, staff, and children, and the problems of rising violence; and how the program will sort out responsibilities at the infant-preschool transitions as P.L. 99-457 expands services.

The End Begins at the Beginning: Both the Perry Preschool and the Developmental Continuity studies benefited -- and benefited Head Start -- through brilliant utilization strategies, including researchers who could communicate effectively to the public and who took the time to do so. It should always be remembered that in the crucial 1981 cabinet meeting, it was Secretary of Education Ted Bell -- a man who had been thoroughly and personally briefed while he was in Utah on the long-term benefits of preschool -- who saved Head Start. The past decade has seen a great expansion of research on knowledge utilization, including the conditions under which research is and is not likely to influence policy and practice. Among the observations is the importance of not short-circuiting the transitions between basic research, laboratory-scale applications, prototypes and pilots, field condition testing, preparing the infrastructure, and marketing. Some savvy agencies and foundations are systematically incorporating planning for utilization -- and funding for utilization -- into their research programs. Head Start could draw on this rich literature on knowledge transfer, utilization, and at the very start of this new generation of research, because the start is where the end payoff begins.

A SORT OF AMEN: Selection with limited funds demands omissions as well as inclusions. Whatever Head Start's choices, today's leadership deserves applause from those whose lives were touched in the past with the silver feather of commitment Head Start brings. If the Head Start community -- parents, teachers, directors, regional staff, national folk, department leadership, Hill authorization and appropriation committees -- can see research as the informing vine that it is, perhaps we can celebrate again the freshening of this dear yet most difficult growth.

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JULIUS B. RICHMOND: After 26 years of Head Start, it might be expected that public interest would wane. On the contrary, there is growing public interest and confidence in the program. The best evidence for this is the congressional authorization for the last session for the full funding for all eligible children by the year 1994. We might suggest declaring a victory, and rest on our laurels, but that would be a disservice to children, families, and workers in the field.

Complacence would not be part of the Head Start tradition. The spirit of innovation that characterized Head Start at its onset has been remarkably sustained. (This fact should in itself be a matter for research in social change and social engineering.) The sociologists and students of social organization have neglected this rich history. A recent observer (Skerry, 1983) described it well:

> A casual visit to the nearest center confirms that Head Start can hardly be said to be lavishly funded. The typical Head Start center, housed in the basement of a church or a housing project, or in spare rooms rented from some social agency, has an improvised quality. The furniture may be second-hand, or classroom materials donated. Most centers could not be further from the impersonal or the institutional, much less the slickly professional. They look and feel like part of the neighborhood they serve. And like their neighbors, Head Start centers seem to be, if not in peril, then certainly struggling to get along. . . This catch-as-catch-can feature of local programs makes Head Start an administrative nightmare. But it also contributes to its enduring success.

We should carefully examine this remarkable history, for we do not want to experience the fate of elementary and secondary education, which is currently in a state of crisis.

It is well to note that of all social programs in our history, Head Start has probably been the most extensively studied. This was not by happenstance. It was part of the early planning. When we started, there were only a handful of investigators studying the development of young children growing up in poverty. We developed a strategy to support research and training in the early years of childhood. This meeting testifies to the success of that strategy.

More has been expected of Head Start than any other program. By contrast, when public education was mandated by the states in the last century, no proof was asked for its effectiveness. It was accepted as the common wisdom -- but not without intense political battles.

Let me begin with early planning, since I was there at the creation. It is well to review some of the overarching goals, especially that this was to be a comprehensive child development program. The Planning Committee succinctly defined its characteristics.

There is considerable evidence that the early years of childhood are the most critical point in the poverty cycle. During these years the creation of learning patterns, emotional development, and the formation of individual expectations and aspirations take place at a very rapid pace. For the child of poverty, there are clearly observable deficiencies in the processes that lay the foundation for a pattern of failure -- and thus a pattern of poverty -- throughout the child's entire life.

Within recent years there has been experimentation and research designed to improve opportunities for the child of poverty. While much of this work is not yet complete, there is adequate evidence to support the view that special programs can be devised for those 4- and 5-year-olds that will improve both the child's opportunities and achievements.

It is clear that successful programs of this type must be comprehensive, involving activities generally associated with the fields of health, social services, and education. Similarly, it is clear that the program must focus on the problems of child and parent, and that these activities need to be integrated carefully with programs for the school years. The Office of Economic Opportunity should avoid financing programs that do not have at least a minimum level and quality of activities from each of the three fields of

effort. Zigler and Valentine (1979) state: "The need for and urgency of these programs is such that they should be initiated immediately. Many programs could begin in the summer of 1965. These would help provide a more complete picture of national needs for use in future planning."

The Planning Committee's document was translated in operational terms. The components of the program were designed to include health services, dental care, nutritional services, early childhood education, social services, and mental health services. In addition, guidelines provided for a favorable student-teacher ratio, parental involvement, community governance, volunteers, and incorporation of children with special needs.

The comprehensiveness of Head Start has plagued policy-makers and research-workers who seek instant answers concerning effectiveness. The most common question I had posed to me in the early days was, "Does it work?" My reply was, "In regard to what?" Certainly the tendency to chase IQ points, which is what the media loved, contributed to this frustration.

Again, to quote Skerry, "one result of the program's multifaceted character is that few have bothered to examine Head Start as a coherent whole." He goes on to point out that advocates point to the educational and nutritional benefits of the snacks and hot meals all students are served daily. Or they cite the finding of a recent national survey that 80% of Head Start parents said the program made arrangements for medical and dental services for their children, and that in 90% of such cases Head Start helped pay for the services. Also, in recent years, virtually all Head Start students have been inoculated against measles, diphtheria, and polio.

In a different vein, supporters frequently mention the emphasis on employing parents at Head Start centers. As a result, parents of past or present enrollees comprise about 29% of all paid employees -- typically cooks, janitors, or paraprofessional aides. This is a record unique among federal programs.

Most centers also offer informal training to parent volunteers in the health, nutrition, and education fields, allowing them to move into paid positions. Taking advantage of Head Start's certification program, employees have been able to take college courses and eventually obtain credentials as child-care workers (Skerry, 1983).

I want to turn more specifically to the research focus of these meetings. As I thought about what to say at this session, I reflected on a conversation that Zigler and some friends and I had in New Haven about a year ago. We were asked by our younger colleagues, "What would you have done differently in the early day of Head Start, with the benefit of hindsight?"

My thoughts went mainly to research issues. It was a period when we were learning more about the relationship between early brain development and behavior. We had a body of knowledge that provided leads.

From the work of Conel we knew that the neurons of the cerebral cortex undergo increasing arborization in the early months and years of life. We knew that stimulation -- or lack of it -- had much influence on how development proceeds. We knew that lack of stimulation is associated with what we call failure to thrive. This was called "anaclitic depression," "hospitalis," "loneliness in infants," and "marasmus" by clinicians in earlier years. The impact on the endocrine and metabolic system is profound. Growth ceases as production of growth hormone declines, and metabolic decline ensues.

Certainly, this is reversible in a favorable environment. But to what extent the psychological effects are reversed we cannot be sure. George Engel has the longest systematic follow-up -- of one child who in adult life manifested residual effects in her mothering patterns.

Less severe deprivation may not result in such severe physiological decline. But behavioral changes are observed. Lest we forget, this was brought to mind by recent observations in the orphanages in Romania. Infants and children were being reared in rather sterile institutional settings. The effects were many: growth retardation, apathy, depressiveness, head rolling, body rocking, and autistic traits of various kinds. As the environments become more stimulating, these children become more responsive. But the longer-term issues concerning attachment remain to be clarified.

In less depriving environments we observe developmental attrition, but not necessarily biological decline. With my colleague, Bettye Caldwell, we noted this in a group of infants and young children we were studying. In retrospect, it is striking that these effects on infants and children being reared in poverty environments were not noted earlier. There was no dearth of studies on infant and young child development, but they were all on middle-class children. This bespeaks the need for studies of diverse populations, and this, of course, is the challenge of Head Start.

We undertook an intervention program and demonstrated that these effects can be changed. The issues in research revolve around how well these changes are retained over time.

Recent reports of early intervention programs that have an effect suggest the need for follow-up studies to maximize the retention of effects of programs in the years prior to Head Start. In a multi-center study supported by the Robert Wood Johnson Foundation, low-birthweight infants in an enriched program, at age 3, had IQ ratings 13 points above the controls for the larger babies and 6 points for the smaller babies. Can their gains be sustained? Enrollment in Head Start might be one way to maximize their chances. Shonkoff has observed similar gains among handicapped children.

The process of creating change remains an intriguing area for study. What may be responsible for enduring effects? The problem was well stated as early as 1968:

> In trying to improve the deprived child's general level of performance, it would appear at least as important to attempt to correct his motivational inadequacies by developing nursery programs geared specifically toward changing his adverse motivational patterns as it is to concentrate on teaching cognitive skills and factual knowledge. This raises

the intriguing question of exactly what standards should be employed in assessing the value of such national intervention efforts as Project Head Start. It would appear that such interventions should be assessed in terms of their success in fostering greater general competence among deprived children rather than their success in developing particular cognitive abilities alone (Zigler & Butterfield, 1968).

Although many years have gone by, we still know all too little about such internal processes as motivation, curiosity, initiative, and persistence.

We have gone through periods of optimism and pessimism in the interpretation of Head Start research. This history may be arbitrarily divided into the following periods. Phase 1 (1965-69) -- over-optimism. Head Start was seen as successful, and claims were made from its short-term success in halting developmental attrition associated with poverty that these gains would be maintained throughout a child's education program. Phase 2 (1969-75) -- over-pessimism. The research during this phase was driven by the Westinghouse Report, published in 1969, which homogenized the population in the analysis and thus missed subgroup differences, as Donald Campbell and his colleagues have shown. Findings indicated that initial positive gains from Head Start experience were "washed out" by the third grade. Head Start gains were lost with the pervasive influences of poverty. Phase 3 (1975-1990) -- realistic evaluation. This began to be a time when researchers tried to determine the effects of what works best for whom and for how long; this trend needs to be continued and expanded.

With the report last year, Head Start Research and Evaluation: A Bluprint for the Future, we are launched on a plan for a comprehensive and continuous effort. The question has gradually shifted from "Does it work?" to "How can we make it work better?" Our long-term strategy must be examined qualitatively and quantitatively and applied to individual, family, and group and community effects.

We know much about some short-term and long-term effects. Short-term effects include facilitation of school readiness, enhancement of health status, and facilitation of parental involvement.

A local anecdote illustrates parent involvement. A successful young adult states, "[My] mother dropped out of high school during her senior year when she became pregnant with [my] older brother. But years later, she earned her high school equivalency degree and is now a teacher's aide. Head Start deserves at least some of the credit for her educational determination . . . because learning became a family priority" (Boston Globe, 5/26/90).

Long-term effects include increases in high school graduation rates, decreases in special education placements, decreases in grade retentions, increases in employment, more likelihood of enrollment in post-secondary education, decreases in likelihood of arrest, and decreases in teenage pregnancy.

As we move toward the next century, it is well to recall the context in which we will be working. We need to respect even more the diverse populations in our communities. We can no longer afford to neglect groups that will become even larger segments of our population. This bespeaks the need to have many approaches, both quantitative and qualitative, covering diverse domains.

We should also note the importance of Head Start advocates supporting efforts to improve programs in the earlier years of childhood. With more working parents, these programs are essential if we are to maximize the developmental potentials for each child and family. Indeed, I would advocate moving the Head Start model down to the earlier period, for it is the only truly comprehensive program in the nation. This is indeed the thrust of the parent-child centers program, which has not been fully developed.

Finally, I would emphasize our need to facilitate reforms in elementary and secondary education. To our shame, we have permitted their deterioration. We should become the most potent advocates for reform, for we know what programs of quality can do. We need to do this under conditions of increasing adversity, for the number of children in poverty has grown over the past decade. To protect Head Start's gains we must surround it with equally effective programs. We cannot afford to do less.

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SHELDON WHITE: When Head Start first came along in the 1960's, developmental psychology was in the process of being born again. A few people here will recall this. In the 1950's the child development institutes and centers were languishing. There were descriptions of child development as being a field, sort of, near death, coming out in the annual reviews of psychology. There was a kind of compensating move to reconstitute the institutes and centers by people coming in from mainstream psychology. There was an older child development research that talked about norms that was subsiding into quiescence. Before about 1960, Jean Piaget was in exile, Vygotsky was, sort of, largely unknown. His Thought and Language, which really started the renaissance, came in the early 1960's. Heinz Brunner was at Clark University, where from time to time his students would come out with strange cries of differentiation and hierarchical integration, which nobody seemed to understand outside of Clark. The field was very atheoretical. There was one big theoretical issue in the 1940's and 50's, and that was, if you can call this a theoretical issue, the question of whether the IQ was environmentally or hereditarily determined. Some of you will remember that Beth Wellman had done some studies

at Iowa in the 1930's, and she claimed to find that there were gains among middle-class white children of five IQ points as a result of their preschool experience. Those were in the days when the IQ was considered a rock-solid sort of human characteristic that was not malleable or subject to change if measurements were properly done. Her statistics had been challenged at California, and there was a big fight going on between Iowa on the one side and California and Minnesota on the other about whether IQ could be changed by preschool experience. Harold Jones's chapter, "The Environment and Mental Development," in Carmichael's Manual of Child Psychology is really a very nice summary of the argument. It gives you all of the complex arguments and much of the discussion. Post-Jensen has really just gone over what Jones talks about in his earlier review.

And in the midst of this, Head Start came along. When Head Start came along, I think academics had trouble conceptualizing what the issues were, because, as I said, Head Start existed in a world far away from where most developmental psychologists did their work. And there began, nevertheless, a collaboration between Head Start and developmental psychology that was to be very important, I think, for developmental psychology. Head Start helped developmental psychology perhaps a little more than developmental psychology helped Head Start at the beginning. There were three kinds of problems in the linkage between developmental psychology and Head Start. First, public discussion of Head Start got caught in the theories of the developmental psychology of the day. Now, there was a reality of Head Start centers, but then there was something that was not quite so real -- the discussion of Head Start in the newspaper and general public discussion about what Head Start was about. And, to a remarkable extent, the romance of IQ modification sort of caught the attention of many people who talked about Head Start, and many people in academia thought that that was what Head Start was about. I can remember reading in Science a few years after the Westinghouse evaluation that Head Start was a psychology experiment that had failed, because people had completely absorbed this legend. Now, to show you the intimate relationship between the renaissance of developmental psychology and the birth of Head Start, Hunt's book, Intelligence and Experience, was really written to reassert the Beth Wellman argument that preschools could modify intelligence. In other words, it was written facing the past and was used as a kind of prophetic text for Head Start. People kept linking it with Head Start. It was also the first place in the American literature that Piaget was presented in modern times. And I can remember that, if one wanted to teach Piaget -- this was before Flebel's book -- one used the three chapters in the Hunt book, which were really the first kind of reasonable American presentation of Piaget's work. At any rate, public discussion said that Head Start was about IQ modification. Some people looked at Head Start more broadly and said it was really about cognitive development. You have to recall that when developmental psychology began to grow again in the 60s, the dominant figure was Jean Piaget. A lot of developmental psych was built around his theory. And so, those people who didn't subscribe to the IQ modification theory subscribed to the notion that Head Start existed to modify children's development, and children's development was synonymous with cognitive development. Those are many, many arguments that what Head Start's goal ought to be is to sort of move children from preoperational thought to concrete operational thought. There were so many studies going on in the United States about whether one could modify Piagetian cognitive development that we are told that Piaget began to refer to that as the "American question."

Americans were really sort of haunted by this notion of intervening in cognitive development. Because of shortcomings in the research technology of the field -- this is not the conceptual technology, but the research technology -- Head Start came to be assessed again and again and again by IQ measures and by cognitive developmental measures. And it was an only-game-in-town thing. Somebody has referred to looking where the light is best. I went to conference after conference, and people, usually from Bank Street, would say with vehemence, preschool education is about the self-concept of children. It is about building children's senses of themselves. Some people would believe it. Some people would not, but we would all sort of go along with it. We would say, OK, what tests have we got? And, when the smoke cleared, we would have an evaluation, which would center on measures of cognitive development, because, in fact, those were the measures we had at hand that had measures of social and emotional development built into them. But, since nobody understood social and emotional development very well, the tests were trivial and never showed anything. And if they would have showed something, we would not have believed them anyway. So, there is a sense in which our inability to understand, to conceptualize, social and emotional development was at the heart of our inability to assess it.

Finally, I have to say that the interchanges between the research community and Head Start were mediated largely by flying professors. I mean, you can't call Ed Zigler prototypical, because he actually went to Washington and lived there. And he experienced the reality of Head Start in a way that most of us did not. I was a flying professor, I will confess. I woke up in the morning in an ivory tower. I took a plane. I flew down to Washington. I sat at conference, in which we sort of talked about what Head Start needs, and then I flew back to the ivory tower in the evening, from which I uttered shrill cries that more research is needed. That was the pattern. There was a great deal that was positive about it, but there were some problems. Westinghouse was among the problems. A lot of the collaboration between Head Start and the academic community was mediated by people who really did not know Head Start very well and who, in fact, were not known very well by Head Start below the level of, shall we say, the senior leadership of the program.

Now, that was the situation in the 1960's and early 1970's. I would not like to pretend for one moment that we have at hand so deep and sophisticated an understanding of child development today that all will be harmony in the future between research and Head Start practice, but I think we have made some headway. There have been massive changes, I think, in developmental psychology as an enterprise, as a collective enterprise, and somewhat smaller changes which, nevertheless, are significant in the ability of the enterprise to connect with Head Start. Many of those changes, I might say, have been promoted by one of the most distinguished of our flying professors, Urie Bronfenbrenner, who has made strenuous efforts to change the patterns of research in the

academy to fit better with the social and political realities in which children live. Not only has he made strenuous efforts, but he has been, I think, quite successful. There are major changes in the enterprise of developmental psychology because of Urie's work and the work of some others.

Let me just indicate what the normal science of developmental psychology looks like today. Many of you know this. I am simply recalling this to you, because I want to draw the contrast between what was in the 1960's and what is today. The mainstream of research in developmental psychology now centers on the study of social development. We have more research and we have better research on social development than we have ever had. We have had some distinguished small research programs -- Robert Sears' work and other work in the past. But now, if you simply open child development, if you open developmental psychology, a lot of the interest of basic researchers in the field centers on social development. There is much interest in the study of the behaviors and knowledge of children in everyday environments. And there is an increasing commitment of developmental psychologists to cultural psychology. The term is borrowed from Vygotsky. We have a kind of Vygotsky cult right now. But Vygotsky is being used as a kind of gathering point for people who were trying to find a perspective other than cognitive development *uber alles*. And the result has been a kind of major shift in where basic research is going. In substantial part, because of the difficulties of evaluating Head Start in the early years, many of our assumptions and practices concerning evaluation have changed. IQ testing, the whole notion of what the IQ test means, has been thoroughly gone over, in large part because of the furor that got going when Jensen's article came out coincidentally with the Westinghouse report. I will attend later this week a meeting in Washington, in which I am working with a group of people at the Office of Technology Assessment, which is concerned with the possibility of revising standardized testing using new assumptions and using new technology.

This kind of effort is something that has been much needed for a long time. We are really rethinking not just IQ testing, but the whole enterprise of standardized testing. We have increasingly sophisticated measures of social and emotional development, not yet adequate in my opinion, but much more sophisticated, intelligent and informed than the instruments of even 10 years ago. There have been fundamental changes in design and methodology, that is, what it means to do a study has really changed. We have moved away from the vain hope of having an experimental child psychology. We really are not sitting on the experimental framework anymore. We took Piaget's clinical method and then we took Piaget's revised clinical method. We now have people pioneering and looking at collective interaction among children. I cannot give you a thumbnail description of that. I want to simply say that I think there are far-reaching changes in our conceptions of methods and methodology and research design in the field.

It seems to me, first of all, that we have dramatically changed and improved our body of normal science in a growing field of developmental psychology. It seems to me, in the second place, that we have drastically changed our conceptions of what an adequate evaluation must be. Westinghouse, remember, was conceived in an era when people thought that bang for the buck, proposed comparisons, were the cat's pajamas in doing evaluation research. We are sadder and wiser now, because of the work of Weikart, because of the work of the Developmental Consortium. I should say happier but wiser. We have learned a great deal, not only about Head Start through this later generation of evaluations, but also about what you can or cannot do in evaluation research. So, we have changed our definition of what is a reasonable and appropriate evaluation design to put on a study.

Lisbeth Schorr's book Within Our Reach has documented and described what a good many people have been saying for years. Buried beneath the rhetoric of the nothing-works theory are many, many small programs that have, in fact, worked, that can be shown to have worked and can be found by a properly sensitive investigator. And it seems to me that we have developed a new generation of developmental psychologists who are little bit more deeply imbued with knowledge about the political process and about the governmental process than in the era of flying professors.

Ed Zigler has been the director of the Bush Center in Child Development and Social Policy at Yale. There has been a system of Bush Centers for a decade in this country. The Centers have trained a generation of young investigators who now have a much more sophisticated understanding of, not only the political process, but the realities of programs and of program participation.

We have people now who can think in new ways about how you link developmental psychology to government. Let me simply sum up what I think all of this amounts to. At this very meeting, Bronfenbrenner has been presenting his PPCT model. It is a very fascinating model: Process, Person, Context and Time. He briefed me on those terms just before I gave this talk. What Bronfenbrenner thinks is that we have to study development the way it really happens. When a person gets into a new context and begins to engage with that context and deals with that context again and again over time, you get arborization. I want to borrow that slide from Julius Richmond. You get a kind of thickening and enrichment of the connections between the two sides.

We have here at this meeting a group of people, many of you developmental psychologists, who are far more understanding and sophisticated and who are doing far better research about Head Start than what I remember from 15 or 20 years ago. At the same time, what I find most impressive about this meeting is that we have Head Start center directors. We have people from Head Start who are far more sophisticated about research and far more troublesome and contentious than Head Start people used to be. And so we have something like a dialogue in which both sides have come to know each other better, have come to know what to expect from one another, have come to understand one another's limitations. I consider that growth. I think that is the PPCT model in action.

I am not going to give you five-cent cigars, because I had my chance working on the Blueprint. It is a document that I am proud to have had a chance to participate in. But I am very pleased that we are able to have this meeting. I think this very meeting

with the people who are here and the kind of research that we have been discussing in the next room is a mark of how far we have come.

Discussion *Christopher Cross*

I would like to bring a perspective that reflects my own concerns, many of them related to my work with the Department of Education and now with the Business Roundtable. In my view, one of the most profound things was said by Dr. Richmond when he talked about the need to have a concern and a mission about the reform of elementary and secondary education. Because without that, the gains that have characterized Head Start are not going to be sustained.

The Business Roundtable has a very substantial systemic reform agenda in education. We need to look at Head Start, I think, unlike the beginning in 1965, and in a way it is an interesting contrast. Lois-ellin Datta spoke about what has changed between the time Head Start began and today, relative to the society we are trying to serve.

It is thought provoking to think about that and look at the different characteristics of society -- issues such as the kind of population, the health issues that confront people, and all the rest of it -- and to use that to step back and say, "We need to look at the larger set of issues here, and not just at Head Start." There are so many confounding variables in society that we need to be aware of and to deal with. We cannot bill Head Start as a miracle cure, as the inoculation, because it just does not work that way. It is a two-edged sword, because it assumes, and maybe the body politic assumes, that there is more of a cure there than the program can deliver. I think we have to look at that. We have to separate issues of program evaluation, as well, from research around the issues that we are dealing with here, and remember the distinction between them. I was also struck in Lois-ellin's paper with the summary of the research agenda that was created in 1969 and the issues that we are talking about today -- causing one to wonder: what happened with the research agenda, where are the answers, and are we really tough enough to ask the questions and try and seek those answers?

A final comment: we need to focus on a dissemination of what we have learned, and to tie it back to program providers and practitioners. I see it in education, and I sense that the same thing is true here now, and can be true in the future. It does no good to do the research and the evaluations unless the findings get translated into something that changes in the way that programs are delivered. That is, I think, as much incumbent upon those of you here to think about and to do as it is for the practitioner community, because you represent the knowledge tree that they need to have. You need to think about how you get out there and how you connect them.

MARTIN GERRY: Rather than try to begin a question session at this point, I would like to summarize a few cross-cutting themes that found agreement among the panelists, and see if I can pull a few major conclusions together.

The keys that came out of this session are that Head Start is not a program, but an evolving concept. That is an important insight. Research must be, and to a large extent has been, the informing vine for the evolution of those concepts, and for policy-making. It was pointed out that the success of the Head Start program has been remarkably sustained, and measured extensively, but also that program quality is the key to predicting the long-term effects on children and families. We must avoid simple answers, as illustrated by the romance of IQ modifications or even some of the early concepts about cognitive development. The social and emotional development of children, relatively anonymously studied early in the program, has become increasingly a controlling factor in life outcomes and consequences. It is extremely important that we shift -- and reflect that shift in the field of developmental psychology -- to understanding the whole child within the context of the Head Start program.

We talked, finally, about a series of future decisions. The idea is that Head Start is an evolving concept, and also a direction. It is an insight, not just for itself, but for programs for younger children, and certainly for programs for those Head Start graduates who go on to the public schools.

Dr. Zigler posed the crucial question, in the form of a challenge: "What is the real innovation that has to take place?" What is the real nature of the educational reform necessary to have the educational system profit from the lessons of Head Start? It is clear that there is a consensus about the need for new and expanded research. We need focused research on the Head Start program and its components, and not simply on the development of children in general if we are to learn more about the program and how it can evolve.

We also have an agreement that we need to inform the Head Start program and other programs about a series of new challenges that are being posed by the confounding social problems of our time, e.g., family dysfunction and the impact of substance abuse in child development. Finally, we need to take a look at the biological issues related to child development, failure to thrive, and the need to integrate information from the neurosciences. All of which says that Head Start represents, without question, the best integrated, holistic approach we have to supporting the development of children and families, and that we need to both recognize that and continue to work on improving it and on taking its message to other programs.

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Plenary Session II

Children and Families in their Communities: The Challenge for Researchers

Chair: **Ronald Haskins**, Minority Counsel, Ways and Means Committee
U.S. House of Representatives

Presenters: **Lynne Feagans**, Professor, Department of Individual and Family Studies, Pennsylvania State University
Making the Transition: The Role of Language in Young Children's Adaptation to School

Vonnie McLoyd, Associate Professor, Department of Psychology, University of Michigan
Neighborhoods as Support Systems for Children and Families: Policy and Research Issues

Ricardo Romo, Professor, Department of History, University of Texas at Austin; Director, Thomas Rivera Center, Trinity College, San Antonio
The Challenge of Diversity: Research in Schools of the Future

Discussant: **Heather Weiss**, Director, Harvard Family Research Project

RON HASKINS: We are meeting today in the midst of a domestic situation that was aptly described more than 130 years ago by Charles Dickens. It was the best of times, it was the worst of times. Consider the current version of the best and worst of times. Family income is at an all-time high for the upper 80% of American families. But after six consecutive years of increases, family income for the bottom 20% is still lower than in the 1970's. After six continuous years of decline, poverty is still higher than any year during the 1970's. Since World War II, the average earnings of Black Americans have increased more than the average earnings of white Americans. Yet there is a clear long-term secular trend toward dropping out of the labor force and being incarcerated among young Black males. While the percentage of mothers who are employed is at an all-time high, employment of low-income families is strikingly low. Only about three of every 100 female-headed households with children in the bottom income quintal has a year-round full-time worker. Similarly, only about 6% of the mothers on AFDC or welfare have actually worked. It appears, then, that we are moving toward a nation that has a permanent group of citizens who live in highly concentrated areas of American cities, have high rates of out-of-wedlock births in female-headed families, suffer from high rates of poverty, and experience shocking rates of crime and victimization. Noted policy makers and thinkers, Daniel Patrick Moynihan and James Q. Wilson among them, are claiming that these underclass environments perpetuate themselves because they spawn living conditions that violate fundamental norms of what it takes to rear healthy children, especially the presence of self-supporting autonomous adults, particularly males.

I would not blame anyone in this audience for quarreling with the way I have defined the nation's central social problem. But is it undeniable that a substantial number of the nation's families rear their children in rotten conditions? We are now well into the third decade of programs designed to ameliorate, if not eliminate, these rotten conditions and their effects on children and families. Lee Shore says that some of the programs are successful. Charles Murray says they are a bust. Regardless of where you are on the Shore/Murray continuum, virtually no one denies that in many respects the problem is getting worse.

It is in these circumstances that we turn to research. The plodding, patient, cautious, long-term nature of research, particularly research on human development, is not attuned to the headlines, that is to say, the rhythms of Washington, D.C. But many of us have faith that our best hope for long-term success in attacking the nation's grave social problems is the understanding that research yields and the knowledge about solutions yielded by program evaluation -- hence this conference and this session.

I take special pleasure in noting the participation of the Society for Research in Child Development, as well as a host of its celebrated researchers. If attendance at this conference reflects new issues and new methods for developmental researchers, and if professional organizations and universities are going to reward relevance in research, we have met the single most fundamental

condition for raising hope that research will in fact provide solid guidance for public policy. The best and the brightest will be on the job. In line with this hope, the purpose of our session today is to look into the root conditions that create the social problems that so trouble us. More specifically, our distinguished speakers will examine what we now know and what we need to know about the families, schools, and communities within which American children are reared and nurtured, or not, as the case may be.

We begin with Dr. Lynne Feagans, a Professor of Human Development at Penn State University. It is fitting that we begin with Dr. Feagans, because she represents the new breed of policy researcher. In her career she has studied three main problems, all closely related to public policy: the conditions that nurture language development and the ways language development influences school success; the ways in which respiratory infections in general and ear infections in particular influence language development and school performance; and the development of learning disabilities and particularly the relationship between language development and learning disabilities. Given this list of research interests, you will not be surprised to learn that Dr. Feagans has a Ph.D. in Psycholinguistics from the University of Michigan and that she spent the formative years of her career at the Frank Porter Graham Child Development Center, where she profited greatly from the stimulation afforded by provocative colleagues, most of whom wound up collecting data for her. Like other top researchers of her generation, Dr. Feagans has served on a number of influential committees and review panels, including almost a decade of reviewing research proposals for various NICHD panels. Along with publications, an area in which Dr. Feagans has also excelled, perhaps the best yardstick for measuring the timeliness and importance of the research questions posed by her scholarship is her success in convincing people to pay for her search for answers. Over the years, Dr. Feagans has been awarded 21 research grants worth some $7 million. Dr. Feagans will now discuss the influence of language on children's transition to the public schools.

LYNNE FEAGANS: There are three issues I shall address in this presentation. The first is the importance of language use in the transition to school. The second is to argue from data that early intervention programs can give low-income children an advantage compared to other low-income children in the transition to school, and no matter what the advantage these programs give to children, schools often do not respond constructively to these children.

Compensatory education for children at risk because of their poverty status has become part of the fabric of our society. The Head Start programs that emerged in the late 1960's have provided children from poverty environments exposure to the kinds of activities and skills that are a part of the public school environment. Evaluations of these Head Start-like projects have documented initial and long-term gains in IQ and achievement, fewer placements in special education, and less retention and grade. Although this information is impressive documentation of short- and long-term gains, it is still not clear what factors might be used to explain the long term outcomes for the children and why some -- like IQ and achievement gains -- appear to diminish over the elementary school years.

One possible causal mechanism that might account for the initial success of the children who attended compensatory or preventive intervention programs is that they learn to use language in a way that makes it easier for them to maneuver through the public school system. The question is whether the school environment supports the gains they have made in the preschool years as they enter the public school. The transition to school is not easy for any child, but it is especially difficult for the poor child, who may not have the resources to meet the challenges of the school.

Head Start-like programs have traditionally tried to prepare children and their families for school through an emphasis on cognitive and social skills needed in early elementary school. Unfortunately, these programs and their evaluations have not really focused on the process of the transition to school. This early period in school probably holds the key to why there have been reported "washout" effects for some Head Start-like programs. Although Doris Entwisle and her colleagues at Johns Hopkins were not evaluating Head Start programs, they have been following a large cohort of children through the Baltimore schools. They found that early schooling success is the best predictor of later school success. This finding further supports the importance of examining closely the earlier period of schooling and the effects or lack of effects of the Head Start programs on that critical period.

Language plays an important part in this transition--not only the language of the child, but the language in the schools. It is estimated that 60% of the child's day is spent listening to and responding to oral language. The way in which Black low-income children use their language may not match the language used in school, and the teachers and other personnel in the school may not have the skills to capitalize on the richness of language these children bring to school.

Today I want to share with you some of the language results from the Abecedarian Early Intervention Program, a study directed by Craig Ramey and James Gallagher at the Frank Porter Graham Child Development Center, University of North Carolina. These are only a small part of the data we collected and only serve to illustrate the importance of language use. My collaborators in this endeavor are many, including the staff and children at the Frank Porter Graham Center, as well as people like Ron Haskins, Kay Fent, and especially Dale Farran.

The children I will report on were randomly assigned at birth to two groups: an intervention (experimental group) and a no-intervention (control group). The children came from very poor families, usually with a single mother with marginal education and other skills. Although these families were definitely poor, they cannot be accurately described as without resources, especially language resources. Many of the children came from families that were indigenous to North Carolina. Most of them had relatives who owned land in the area, and they saw and interacted with many relatives. Thus, the information that I will report may not be applicable to

urban poor children like the ones that are described in the recent book, There Are No Children Here. But they are representative of most of the poor children in this country, those in rural and semi-urban settings. As the experimental and control children entered the public school, a local population sample (LPS) of children was also chosen as a comparison group.

I shall talk about these three groups of children and I will stress two major points. First, the language of the children we studied who were reared in poverty was rich and complex, no matter whether they were in the experimental group, the control group, or the local population sample. And yet, some of these children, especially the low-income children, were not seen as using their language constructively in school. Second, I will speculate on why some of these children had a difficult transition to school, using four kinds of data that we collected. I will present some data on the naturalistic observations in their neighborhood settings in kindergarten. I shall then examine data on teachers' ratings of the children's language use in kindergarten, first, and second grades; data from an experimental task of narrative skills; and a teacher/pupil interaction task that was performed in each of the classrooms for all the children

It has become increasingly clear to educators and psychologists that language at the word and sentence level does not capture the important pragmatic elements of the language, i.e., the language that we use in everyday conversation to get information from others and to transmit information to others. Language beyond the sentence and word level has been called discourse processes. These processes are the ones that are being considered here. Specifically, I will discuss children's ability to engage in conversation about a specific topic for an extended period of time, to answer questions about event-related material, and to recount narratives or stories that they have been told. These are the kinds of language skills that have been related to school success.

Now, let us look at some data. First, Ron Haskins and I collected naturalistic language samples in the neighborhoods of the Black low-income children from the experimental and control groups of the Abecedarian project, as well as from the mostly white middle-class local population sample. We did that in kindergarten after school with an orange backpack that we ran through these neighborhoods. As I said, we were interested in discourse processes, i.e., dialogues that children had with each other and with adults. From the massive amount of data collected, we actually found no differences among any of the groups. There are no differences on length of dialogue, number of participants, the language of the participants, the length of their sentences (MLU), the linguistic complexity of their sentences, whether the children talked about concrete versus abstract topics, whether they talked about present versus non-present events, whether they talked about events or objects. We did find, however, an interaction between group and sex, with Black boys using more words and utterances in their dialogues with other people. This is similar to some of the findings of Shirley Brice Heath, indicating the importance of extended talk for African American boys. However, we related teachers' perceptions of children's language with the children's actual language in the neighborhood. There were no significant correlations for the African American group, whereas for the white group the correlations were positive. This finding indicates that the Black children's rich language in the neighborhood was not being evaluated similarly in school, while for the white middle-class children it was. What is important to remember is that the language of all the children was rich and complex and showed no evidence of deficiency in any way.

Across all three years in school, teachers rated the intervention children more favorably on understanding stories and narratives (comprehension), being able to produce narratives and stories in class (production), and being able to rephrase information that was not understood by others. Thus, teachers who did not know which children were in the early intervention program still rated their language use as better than the control group (of course, the local population sample was rated better than the low-income groups). So we can see, at least from teachers' ratings, that there was no diminution of effects of the intervention over the first three years of school.

We presented the children in our experimental tasks of narratives with a grocery store setting and asked them to listen to the story and act it out with the props provided in the grocery store. Once the children acted out the entire story correctly, they were asked to paraphrase the story and answer questions about the story. Thus, all children demonstrated comprehension of the story before they were asked to paraphrase the story or answer questions about it. Some of the questions were easy and some were hard. This task mimics the kinds of demands that are often made in the elementary school classroom. Although the experimental children performed a bit better than the control children, the middle-income children consistently did better on the comprehension and paraphrase. In addition, the low-income children added events that were not in the original story they were told. Results are summarized in Table 1.

If the children could use their language in their neighborhoods so well, it was surprising that they did not show the same skill in a structured task like this, especially when they already knew the story. Since overall language skill cannot be implicated, it may be that the low-income children saw different demands from this task. Many of the low-income children did not tell us the story we told them. They added and embellished the story, often transforming it into a more interesting vignette, but, in the process, they omitted many of the original elements of the story. It is unlikely, the way the schools are structured now, that teachers would find this strategy amusing or correct. Again, Shirley Heath has shown that the originality of stories is highly valued in this low-income Black culture in North Carolina, and so the children may have been doing what they thought they should be doing with fairly boring stories. In answering the questions, the experimental children were better than the control children, especially in their ability to answer abstract questions.

Table 1. LANGUAGE IN STANDARDIZED TASKS

Narrative Skill

All low-income children had fewer elements in their narratives

All low-income children had more additional events that were added to the narratives

Answering Questions

Experimental children were better, specifically on answering abstract questions

Error strategies were better for the Experimental children

Overall the LPS children were the best

Error strategies were correlated with achievement in school

Here is a sample of one of the stories we gave the children and the kinds of abstract questions asked of the children. "John went into the grocery store. He got a cake for his mother's birthday party. At the checkout counter he paid the clerk. At the end he ran home." You see, it is kind of boring. Here is an example of one of the questions: "When did John run home?" The correct answer is, "At the end" or "After he paid the clerk." Today, I want to concentrate on the kinds of errors children made. Type 1 errors are almost right; they certainly can be the answer to a "when" question, but they may not be relevant for the story. If they said, "When he got the stuff," or "Yesterday," or "A while ago," it really is not exactly the correct answer for this particular story. So that is a type 1 error. The type 2 error, "Over there," or "Because he wanted to," is really a category mistake. Marian Blank has called these "unteachable" responses, because, in her work, she felt that teachers had a difficult time dealing with children who gave that kind of answer to a question. "Over there" can be the answer to a "where" question but not to a "when" question. A type 3 error is silence or, "I don't know."

Significantly more of the control group children used type 2 or unteachable responses compared to the other two groups. In addition, in Table 2 you can see that the use of type 2 errors (the unteachable response) was negatively related to IQ, achievement, and language, especially for the control group, but also for all the groups. Again, type 2 error is not related to doing well in school.

Table 2. CORRELATIONS OF ERRORS WITH DEVELOPMENTAL MARKERS OF SCHOOL SUCCESS

Group C			Group E			Group LP		
IQ	Achievement	Language	IQ	Achievement	Language	IQ	Achievement	Language
Type 1 Response Errors								
-.18	.23	.07	.07	.03	-.14	-.25*	-.36**	-.28*
-.48***	-.37	-.50***	-.38**	-.38**	-.18	-.32**	-.25	-.10
-.27	-.23	.22	-.07	-.15	.13	.02	.11	.05

*p <=.001 **p <=.001 ***p <=.001

In order to follow up on this finding, we devised a teacher/pupil interaction test that mimicked what often happens in school. But, in this case, the actual teachers were the adults in this task. We asked the teachers to go through a wordless picture book with the child and then to ask the child a set of prespecified questions about the story, some of which were hard and some of which were easy. This book, called A Boy, Dog and a Frog, is about a boy and a dog going to the pond and trying to catch a frog. The pictures tell the story well, and there are many complex and emotional themes that the child must understand in order to understand the story and answer questions. We told the teachers that the children would have trouble answering these questions and to please follow up and try to get the children to answer the questions correctly. As in our previous work, we were interested in the kinds of answers the children gave, as well as the responses the teachers gave. An example of a difficult question to this picture is, "Why do you think the dog might not like the frog to stay with the boy always?" Let me review again. The child strategies one could get are: correct -- a type 1 that is nearly correct; a type 2 that is a category mistake; and a type 3, such as "I don't know" or silence, even after prodding. The teacher's strategies are: 1) acknowledging it and saying "Yes, that's good"; 2) ignoring the child's answer and going on;

3) restructuring the question so that it is easier for the child to answer, encouraging the child, or giving the child more information; and 4) making the question more difficult by complicating it. For example, the teacher might say, "How might the frog, if he wanted, make it so that he might be happier when he isn't now?"

The control and experimental children were compared to the middle-class local population sample of children from their classrooms. Results of the test showed no group differences on the proportions of correct answers to the questions and no differences on the mean number of type 1 errors. The number of type 2 errors used by the experimental and control group children was much greater than the local population sample children. Remember, these are the errors called "unteachable" responses, the ones that correlated negatively with school outcome measures (see Table 2). However, if we look at type 3 errors (being silent or saying "I don't know"), the LPS group made more of those. That is the real difference between the low-income and middle-income groups.

Now, let us examine the teachers' responses to type 2 errors. The teachers used good strategies, i.e., prodding the child to answer or restructuring the question so the child could answer it correctly, only about 60% of the time. The other 40% of the time they either said "good" and went on, ignored the child's answer, or actually made the question more complicated. All three of these latter strategies would be ineffective in helping the child get the right answer.

The picture looks different when a child is silent or says, "I don't know" -- a type 3 error. The teacher actually does a better job of helping the child. Ninety percent of the time the teacher restructures the question or prods the child to answer. The teacher rarely just acknowledges or ignores this kind of answer and rarely complicates the question. Since middle-class children use type 3 errors more often, they are more likely to get better feedback from the teacher, while the low-income children -- who need the teacher feedback even more -- get poor feedback because they often use type 2 errors. So, in summary from this task, low-income children gave more type 2 errors, middle-class local population children gave more type 3 errors, and teachers gave more productive feedback to the type 3 errors and less productive feedback to type 2 errors.

Now, to summarize the findings: First, we found no differences between the experimental, control, and local population sample on their language in the neighborhood. All children used rich and complex language that should have served them well as they entered school. In paraphrasing stories, both low-income groups embellished the stories and often transformed them into new stories. This kind of strategy is unlikely to be rewarded in the school setting as it is now. It appeared that the children were using their language differently from the middle-class children. They also made different kinds of errors, errors that teachers are not trained to deal with effectively.

So what does this mean? It means that low-income children who use language differently are at a real disadvantage when they enter school, even those who may have had early intervention, like Head Start programs. We have evidence from teachers that they give poor feedback to wrong answers that low-income children give, and that sometimes they even rate their language use less well. These findings may help explain why children from Head Start programs enter school with good skills, but because the school is not ready to respond to them, they begin to fail and the initial gains are washed out after the first few years.

What we now need is more and better information about the processes involved in all areas of the transition to school and the teachers strategies that work with low-income, ethnically diverse students. Although some of the poor children in this country come from truly impoverished backgrounds, the children in the sample I have just described were poor, but with many varied and enriched language environments. This group represents a significant number of the poor children in this country. We need better ways of assimilating them into our schools because we will need all of them for the demands of the next century. The white middle-class child is disappearing as a majority population. By the year 2000, over half the children entering school will not be nonwhite. And at the current rate, many will be poor. We must do a better job of preparing our schools to meet this challenge. Although President Bush has called for all children to be ready to learn when they enter school, I believe it is an equal or even more important challenge to call for all teachers and schools to be ready to teach each child to learn when they enter school.

RON HASKINS: A graduate of Taladenia College in 1971, Vonnie McLoyd went on to earn a Ph.D. in psychology from the University of Michigan in 1975. Since that time, Dr. McLoyd has established herself as one of the nation's foremost researchers on the effects of economic hardship on parental behavior in children's development. In addition to her research, Dr. McLoyd has served on a blizzard of committees, advisory panels, review panels, and editorial boards. Here also her commitment to understanding and assisting poor, especially Black, families and children is evident. She has served on the task force on children of the unemployed of the United Services of Detroit, minority female single-parent employment programs sponsored by the Rockefeller Foundation, the advisory panel of ACYF's national impact evaluation of the comprehensive child development program, and the advisory panel of the Department of Education's national Even Start evaluation. Currently a professor of psychology in Afro American studies at the University of Michigan, her remarkable insight in both the influences of poverty and factors that mitigate this influence is on full display in her 1990 review article on the impact of economic hardship of Black families with children, which appeared in Child Development. Based in large measure on the reasoning and evidence presented in this superb article, Dr. McLoyd's topic today is "Neighborhood Supports for Families and Children."

VONNIE MCLOYD: The most glaring ongoing stressors associated with urban poverty have to do with the physical setting where the urban poor are forced to live. Stressors include inadequate housing, environmental instability, and dangerous neighborhoods. During the 1980's, several tragic and riveting stories published in the popular press chronicled poor children's steady exposure to violence, criminal activity, and death. Increasingly, urban environments where large concentrations of poor families live are war zones, rather than places of relative safety. This is due, in no small part, to the prevalence of guns among youths and their use in gang-related activity. Death of children resulting from violence is becoming so typical that support groups for family members who have sustained this experience have sprung up in several cities, Detroit being only one of them.

I want to organize my talk today around three questions. First, what are the effects of living in an extremely dangerous neighborhood? Second, can supportive positive social relations buffer the negative impact on parents and children living in these neighborhoods? And third, I want to invert this question and ask if certain neighborhood characteristics facilitate parenting and children's development and discourage aversive negative parenting? Common sense as well as evidence from both empirical research and descriptive ethnographic work suggest that living in extremely dangerous neighborhoods has a negative impact on many different aspects of children's development.

One of the most recent and extensive journalistic accounts of the physical and psychological threats posed by urban poverty was written by Alex Koltowitz and published in the Wall Street Journal. This account was expanded in a recently published book entitled There Are No Children Here. The title speaks to the fact that poverty brutally violates the notion that childhood is a time of boundless happiness and carefree existence, when children endure a moratorium from the burdens of adult responsibilities and concerns.

Koltowitz' account focuses on the lives of Lafayette, a 12-year-old African-American boy, his family, and his friends. Unfortunately, his story is all too familiar to poor children living in inner cities. He has maneuvered to avoid being hit by crossfire bullets, seen friends shot and adults severely beaten, and stood over a dying teenager, who had been gunned down outside his apartment door. He can distinguish a .45-caliber revolver from a .357 magnum and identify the buildings in his neighborhood where girls have been raped. Lafayette and his 9-year old brother experience headaches when they hear gunfire and they sometimes shake uncontrollably when surprised by a loud noise. Death is no stranger to them. They attend funerals routinely. When a resident of the project is killed, mimeograph sheets go up in the halls of the projects giving details of the funeral. Nothing speaks more tellingly of the level of routine violence that characterizes Lafayette's community than the fact that his mother has taken out burial insurance on all of her children. Koltowitz's findings about the psychological effects of living in violence-ridden communities are born out in large-scale empirical studies. Compared to children living in safer environments, children living in high-crime communities report greater dislike of other children, an elevated feeling of loneliness, rejection, worry, fear, anger, and unhappiness. Carl Bell, an African-American psychiatrist in Chicago, along with several other people, has likened the effects of poor inner-city children's steady exposure to violence, criminal activity, and death to the post-traumatic stress syndrome that plagues Vietnam combat veterans. These children experience greater loneliness in part because dangerous neighborhoods severely restrict opportunities for peer interaction, especially during the pre-adolescent years. For the sake of safety, parents often keep their younger children physically close to them, restricting them to home during free time and encouraging them to view peers with suspicion and mistrust. Giving peers the benefit of the doubt may be too risky in these kinds of circumstances.

Lafayette is suspicious of certain peers, refusing to play basketball with them because he fears that they might try to make him join a gang. One of his friends, James, has his own folk theory about how to survive in his community. He recommends that if children want to make it out of the projects, they should make as few friends as possible. These children gradually come to see with great clarity how small their futures are. When asked what he wanted to be, Lafayette said, "If I grow up, I want to be a bus driver." Note that Lafayette said if I grow up, not when I grow up. At this young age, Lafayette was not sure, and with very good reason, that he would make it to adulthood. His mother, who permanently lost the use of two of her fingers when she was attacked by knife-wielding muggers, worries that Lafayette has become unusually withdrawn. Of her child she says, "He says talking isn't going to help him, that everything that goes wrong keeps going wrong and everything that's right doesn't stay right. So why should I talk? He has a lot of hate built up inside him."

In addition to forcing parents to limit children's opportunities for peer interaction and exploration of the physical environment, dangerous neighborhoods appear to encourage other markers of so-called "restrictive parenting." Research indicates that poor inner-city mothers are more likely to use physical punishment as a child management strategy if they perceive their neighborhoods to be highly dangerous and rife with negative influences. This may reflect their greater intolerance of child disobedience because of the increased presence of dangers and threats to the child's safety. It could, of course, also reflect several others factors, including lack of child care assistance and higher levels of psychological distress in the mothers, which would lead them to adopt conflict resolution strategies that require less effort, such as enforcing obedience unilaterally rather than negotiating or reasoning with the child.

High levels of danger necessitate that children process and abide by a cornucopia of rules. Dubrow and Garbarino, researchers at Erikson Institute in Chicago, found that poor mothers living in high-rise public housing in Chicago deny talking to their preschoolers directly about the dangers and the risk of harm. Nevertheless, if you look closely at the rules they set for their children, they clearly reflect a preoccupation with safety. For example, they tell their children: don't go out in the hallway; don't go around the corners; don't walk by yourself; stay close to me so you don't stumble and fall (for example, in a dark hallway); stay together all the

time; don't sit by the windows; turn out the lights before you look out the window; if you hear shots, hit the floor; go in and out of the door of the apartment quickly and don't bother anyone; run and get out of the way if shooting starts; and perhaps the most poignant of all, because it underscores the randomness and uncontrollability of violence in the inner city, mothers tell their children to pray. Mothers studied by Koltowitz tell their children to suppress their instinctive urge to run when they hear shooting. Rather, they are first to walk and then run only after they have determined where the bullets are coming from. Researchers have been quick to criticize the parenting behavior of poor mothers in the main because this behavior in numerous ways is different from that of middle-class mothers.

The preliminary findings that I have just discussed I think ratify John Ogbu's view that the adequate study of childrearing in a given population must probe the ecology within which childrearing occurs and seek to understand how elements of that ecology shape parenting techniques in individuals' conscious models of how children should be raised. He eschews the practice of comparing the parenting behavior of middle-class and lower-class individuals, and, more to the point, judging the adequacy of lower-class parenting on the basis of middle-class standards. Impoverished inner-city mothers and middle-class mothers live in worlds apart, separated by different environmental demands, different cultural imperatives, and great disparity in material resources, among other things. We need to study poor families and their parenting behavior on their own terms and in their own right, not in comparison to middle-class families. We need to document, for example, the conditions under which elements of parenting that we have traditionally called restrictive are, in fact, functional and beneficial to poor children's development.

I want to now turn to the second question I posed, that is, can supportive positive social relations buffer the negative impact on parents and children of living in extremely dangerous neighborhoods? Unfortunately, the answer to that question is that they do not seem to or it does not seem to. What little empirical work exists suggests that, by and large, supportive positive social relations with neighbors, friends, and relatives do not completely negate the adverse affects of living in a high-crime neighborhood. These findings are in line with those from a more developed body of literature on children of war -- taking our analogy between poor inner-city environments and war zones a bit further. Research on children of war seems to support two conclusions: The presence of comforting adults lessens, but does not eliminate, the trauma and negative psychological symptoms in children that result from encounters with violence. If children feel that there is someone they can cling to, someone they can count on, they survive the onslaught of environmental violence better than those who have no one else to turn to or to count on. But discernible effects remain for all of these children just the same.

It is entirely too much, I believe, to ask impoverished parents who are often single mothers to play this supportive role alone. Poor urban communities include individuals who can potentially share this supportive and mentoring role. But this potential is minimized when little neighboring goes on in the community. By neighboring, I mean knowing, socializing, and having direct one-on-one friendly contact with people in one's community, as well as asking and receiving various kinds of help from them. The close spatial location of neighbors puts them in a uniquely advantageous position to perform functions that other network members would find difficult. As researchers point out, neighbors can serve as support systems for individuals. They can provide emotional and material aid, foster a sense of identification, and serve as a buffer from the feelings of isolation often associated with today's cities.

Neighborhood participation and watchfulness of neighbors has reduced crime in many communities. But virtually nothing is known about what factors are associated with neighboring in poor urban communities. What little we know comes primarily from working-class and lower-middle-class communities, many of them not urban. This work indicates that neighboring increases with an increase in the psychological sense of the community, with satisfaction with neighborhood conditions, participation in neighborhood activities, and duration of residence in the community. The physical environments of neighborhoods has also been found to influence social contact among neighbors, factors such as the structure and location of homes and apartment buildings, placement of doorways and windows, the location of leisure and recreational activities, and the flow of traffic. Researchers need to devote effort toward developing a more extensive understanding of factors that facilitate neighboring, especially or specifically in poor urban environments.

The application of this knowledge holds the potential to increase the number of poor children who triumph emotionally and educationally, despite the obstacles posed by poverty, because -- as we already know -- mentors and supportive adults figure prominently in the lives of resilient poor children. The question researchers now need to address, I believe, is what environmental factors foster this level of involvement with other people's children living in the community.

Consideration of these issues leads me directly to a focus on child abuse, a tragic event that has consistently been found to be more prevalent among the poor than among more affluent individuals. The most salient community characteristics that have been linked to the quality of childrearing are the degree of parenting and child support available in the community and other variables that seem to determine the degree of parenting and child support available. For example, it has been found that when the pool of same-age adult network members increases in a community, kinds of stimulation of the child, maternal warmth, and overall quality of child rearing increases.

I want to talk specifically about one study that was done by Garbarino and Sherman, because it was a unique and highly controlled study. They compared the social ecology of two neighborhoods that differed greatly in the rate of child abuse and neglect, but had similar socioeconomic and demographic profiles. Mothers in the neighborhood with low rates of child abuse and neglect, as compared to the community with high rates of child abuse and neglect, reported more exchanges among neighbors, more exchanges of child supervision, increased use of other neighborhood children as playmates, and a larger number of people who took an interest

in the child's welfare. Furthermore, mothers in the neighborhood with low rates of child abuse and neglect rated their neighborhood as a better place to live and to rear children. They rated the availability of child care more positively and perceived their children as easier to raise. Gabarino and Sherman's findings fit very well with other work indicating that, compared to non-abusing parents, parents who abuse their children have lived in their neighborhoods for a shorter period of time, are more isolated from formal and informal support networks, and are less likely to have a relative living nearby. Not having a relative living nearby appears important, because it signals the absence of a family member in close proximity who can provide day-to-day parenting assistance, as well as help in emergency situations. Common sense and research studies tell us that when mothers receive help with domestic and parenting responsibilities and have routine breaks from the responsibilities of parenting, they perform better as parents and find the parenting role more satisfying. They are warmer, less rejecting of their children, more sensitive and psychologically accessible to them, and less punitive. In addition to enhancing mother's psychological well-being, and in turn improving their capacities for sensitive and nurturant parenting, members of parent-support networks may directly curb aversive or sensitive parenting by direct intervention.

Scholars have long suggested that one of the unique functions of the extended family is the prevention of child maltreatment. Network embeddedness, of course, increases the chances of detecting child abuse, and a strong sense of obligation fosters direct intervention in the interests of the child. According to James Garbarino, under certain conditions, family isolation serves as the catalytic agent for child abuse. Privacy that excludes intrusive kinship and neighborhood networks can be a danger to children. These findings have critical implications in improving the quality of children's lives, and we help parents in their role as parents when we make it possible for them to have some time away from parenting to replenish themselves. When we intervene to curb their harsh and disciplinary practices, we are indirectly helping their children to develop positively both cognitively and socioemotionally.

I want to make a final comment about community characteristics, and that has to do with the degree of racial congruity that characterizes the neighborhood or the block. A racially incongruent neighborhood is one where the majority of individuals are of a different race than the individual in question. Conversely, a racially congruent neighborhood is one where the majority of the individuals are of the same race as the individual in question. The typical research design focusing on this issue compares a racially incongruent neighborhood with a racially congruent neighborhood. Several studies have found that even when you control for social class, Black children and adults living in racially incongruent neighborhoods are at a higher risk of psychopathology, socioemotional problems, and psychiatric hospitalization compared to people living in racially congruent communities. The factors underlying this relation are not well understood. This issue stands out as one that merits a very high priority for future research efforts.

Several possible explanations for this relation come to mind. It may be that racially incongruent neighborhoods provide less psychological support, place a resident at an increased risk of being exposed to interracial suspicion, hostility, and prejudicial treatment, and impair the individual's ability to form support networks or systems that can act as buffers against these threats. There is some evidence that supports these speculations. For example, Black parents who live in predominantly Black neighborhoods are less concerned about discrimination, are more at ease psychologically, and report receiving more neighboring than black parents who live in integrated, but predominantly white, neighborhoods. For this reason it is, in my opinion, not at all far-fetched to label racism and the racial insularity it has engendered as public health problems. Understanding whether and which characteristics of racially incongruent neighborhoods put children at psychological risk is only one of the important challenges facing researchers in the decade of the 90s. Identifying environmental factors that foster mentoring and high levels of positive involvement with other people's children and not just one's own children is yet another issue that I think should receive high priority in future research efforts. It is my hope that our children and our social policies will be the beneficiaries of programs of research focused on these and related issues.

RON HASKINS: Ricardo Romo, an Associate Professor of History at the University of Texas at Austin, is a person of diverse interests. A former world-class runner who was a member of the U.S. National Track and Field Team in 1966, Dr. Romo is a noted photographer as well as a researcher, author, and editor. His book East Los Angeles: History of a Barrio is now in its third printing. He is also the coauthor of The Mexican-American Experience, published in 1985. Dr. Romo was honored last year by selection as a Fellow at the Center for Advanced Study and Behavioral Sciences at Stanford. Since he obtained his Ph.D. in history from UCLA in 1975, a continuous theme in Dr. Romo's work has been the search for ways to bring research knowledge to bear on poverty and minority life in the United States. Particularly notable in this regard is his work in establishing the Texas office of the Tomas Rivera Center in San Antonio. Opened in 1988, the center has already convened several meetings, symposiums, and other forms for describing the status of Hispanics in America and seeking solutions to the problems faced by Hispanics and other minorities. Today, Dr. Romo will discuss the challenge of diversity in public school classrooms.

RICARDO ROMO: Who speaks for the Hispanic child in America? Regretfully, we have few voices in Washington, D.C., or in state capitals. Today, millions of Latino children dream of going to school, of learning to read, but for too many 3- to 5-year-olds, there is only despair. Perhaps we need a Cesar Chavez of the Latino children's movement. A Latino child living with a single parent in New York is more likely to live in poverty than an African-American child in a similar family situation. A youth without working parents is more likely to leave high school without a diploma than a youth of a working parent. A young child living in poverty cannot be expected to conquer his hunger at the expense of his attention span. For too long, our nation's leaders have advocated that these children eat cake.

To bring about change requires a reevaluation of our priorities. Change will require more community participation and public policy. Change will demand a greater commitment from our national leaders. And we need to educate our leaders. The role models for a Latino child are not the professional class, the college graduate. Rather, the child sees unemployment, underemployment, and families in poverty as prominent role models in the Latino community. Unlike non-Hispanic children, Latinos of school age have few powerful lobbies. The Children's Defense Fund represents a bright light in such an important arena. There is no well-funded PAC to see that the social and health concerns that would benefit families are acted upon by Congress. Our children must rely on concerned, but often non-English-speaking, limited English-speaking, or illiterate parents and compassionate adults to fight for educational reform and social justice.

Popular myth tells us that the Hispanic child lives in the crowded tenements of New York or the farm communities of Texas and New Mexico -- a minority so small that they were referred to as "the invisible minority" during the Kennedy and Johnson administrations. John Kennedy began to listen to the schooling concerns of the Latino community during the early 60s as a response to the Cuban Revolution crisis and his own debt to the Mexican Americans who voted for him in Texas and New Mexico. The Johnson White House introduced bilingual education and Head Start. But there never was much money, and bilingual education pitted Blacks against Latinos because funding would be divided to address the needs of more children, but without increases in aid. In addition, the Eastern political establishment, moved by the sacrifices of farm workers in California, supported legislation to educate migrant children in the Southwest. But the funds were too small to keep children in school, and when children left school early to help their parents pick lettuce and tomatoes, no one asked why children remained at the side of their parents while they were picking the crops.

In recent years, social science research and more accurate census counts challenged many old ideas. For more than 50 years, Latinos have been the second largest minority in the United States, and the 1990 census has not changed that demographic standing. What has changed is that Latinos are no longer as homogeneous as they were a generation or two ago. Today, Latino children play on the beaches of Miami, live in the suburbs of Houston, and attend preschool programs in crowded Asian neighborhoods of San Francisco. There are now 22 million Hispanics or Latinos and there are Spanish-speaking communities in every state. The minority school-age population of the four Southwest border states -- California, Arizona, New Mexico, and Texas -- now stands at 47% of the school population. The 1990 census will show that half of all the children in these states are of minority descent. Today's classrooms are filled with black and brown children. The classrooms of the South and West are especially colorful. In contrast to 2% minority school-age population in New Hampshire and Maine, for example, the states of Louisiana, Mississippi, Texas, and New Mexico have an almost 50% minority student body population. I recently spent a week in Dallas, Texas, interviewing 65 community leaders. Most seemed perplexed by the rapid rise of minority students. Indeed Dallas, Texas is now 85 percent black and brown.

But numbers only tell a part of the story. Hispanic communities are united by language and religion, but little else. While Mexican Americans constitute 65% of all Latinos, Central Americans are becoming the fastest growing immigrant population in the cities of Miami, Houston, Chicago, Washington, Los Angeles, and San Francisco. The new Latino immigrants come from war-torn Nicaragua or from the Mayan-speaking mountain communities of Guatemala. Some of the new Latinos do not even speak Spanish and will have difficulty learning English, and some of the adults will not have completed more than the third grade. Their children are also poorly educated. These immigrants come to America to find work. For many, schools are foreign institutions. Similarly, the educational needs of Puerto Ricans in New York are vastly different from that of Cubans in Florida

We must not forget that educating poor children is always more difficult. It is difficult for Latino communities because parents might not speak English, and thus have little information about the schools. There may also be transportation and child care problems. The Children's Defense Fund recently released a study confirming that Hispanics are the fastest growing group of poor children. More than one in three Hispanic children is poor, including one-third of all Mexican American children. Most of these families are poor, not because father and mother refuse to work, but because the recessions of the 90's have hurt their income. A study done in 1989 found that nearly two out of three poor families include at least one worker; the Hispanic attending school in drug-infested neighborhoods faces additional challenges. There is danger just in getting the child to school. Administrators are forced to provide security guards for students and teachers alike. Fences are high and often locked during school hours. Teachers worry about the safety of students, and outside play is often interrupted by gunfire in nearby streets. Yes, there is a Lafayette in the Latino community. No, this is not a pretty picture. Young children need to know that they are safe from crime, and violence must never interfere with their learning.

The education of our children must be our highest priority. Their education, however, is in our hands. Latino concerns are not simply about giving our children schooling as a means to making them more productive employees. Our community seeks equity in school finance. In poor schools, teachers have to ration books and materials. In poor schools, children sit in rooms poorly heated in winter or not adequately cooled on hot summer days. The pay in these poverty-stricken schools is often so low that experienced teachers leave for other districts.

The Latino communities have their share of poor school districts. Latinos initiated school finance suits in California (Serrano v. Priest) and in Texas (Rodriguez v. San Antonio Public School District). After 20 years of litigation, the Rodriguez case resulted in a

unanimous decision in the Texas Supreme Court in favor of Rodriguez representing Edgewood v. Kirby suit. Today, this victory is described as the Robin Hood case, where the state steals from the rich districts to finance the poor districts. This week, as I left Austin, Texas, the rich districts were back in court in an attempt to challenge the latest legislative plan to restructure the financing of our schools. The legal fight was a community fight, a community victory. Many who responded to keep the Rodriguez suit alive were the working parents of San Antonio, Texas. You recall that the U. S. Supreme Court had ruled against Rodriguez in 1973. It rejected the plaintiffs' argument that Americans had a constitutional right to an education and refused to find that wealth represented a suspect classification, and thus was subject to a discrimination suit. The court that said if wealth differences existed in Texas schools, they could not right such a wrong.

In San Antonio and southern Texas, grass roots organizations have made a difference in the school reform movement. Most influential was the Industrial Areas Foundation, which was founded in Chicago by Sol Alinsky and is now organized in Texas under Ernie Cortez. It has 90,000 members in San Antonio, Texas, alone under the name of Communities Organized for Public Service (they are called COPS). They help to keep the equity school finance suit in the courts; after nearly 20 years, the highest state court has agreed that poor schools were poor because of the outdated local school property tax system. Millions of dollars will now be redirected to poor schools throughout the state, and this will benefit white, black, and brown children. The Latino community made this suit and this redirection possible.

In Texas, Hispanics represent 33% of the school children in the state. Overall, they make up 25% of the state population, but 33% of the population of children. We are the future, but our present needs are not being met. For example, the state of Texas educates a total of 13,000 3-year-olds in the early education programs, but Hispanic children represent only 3,000 of that total. There are a million Hispanic children in the state of Texas, and 3,000 are being educated at the age of three. Of the pre-kindergarten 4-year-old low-income school population, there are 41,000 Hispanics being educated. In other words, the majority of Hispanic 3- and 4-year-olds are not in public school programs.

A San Antonio school modeled after the James Comer school prototype is open at J.T. Breckenridge Elementary school, located in a low-income Hispanic neighborhood surrounded by a housing project. Funded by a five year Hogg Foundation grant, the "School of the Future," as it is called, plans to offer family therapy, social service coordination, and assistance for families and parental involvement. The community is currently involved in the citizenship program and adult literacy classes, and there will be further classes related to drug abuse and therapy. With the support of parents, the school intends to raise school achievement in science and mathematics. In time, parents will utilize the school to complete their own schooling, because the majority of parents in this community have never finished high school. There is also a new pre-kindergarten program at the Jose Cardenas Center in the predominantly Hispanic Edgewood Independent School District. The full-day program provides child care before and after school and an instructional component for children whose parents work, study, or train full time. New to this innovative program is the involvement of YMCA program staff, who are contracted as teaching assistants during the instructional portion of the program. This fall, the number of children served will increase from 36 to 75 3-year-olds. Eighty percent of these children will also be provided with child care services by the YMCA. In addition, child care services will be extended to about 40 to 50 infants and toddlers whose mothers go to high school in that district. Some of these programs have been standard in communities, but this is completely new to San Antonio. There are indeed many new programs created for community involvement. There is hope and much to do. The business community has also joined the educational reform movement. I recently learned of a $250,000 a year investment by Texas Instruments in Dallas, Texas, for the pre-kindergarten school program. The program was designed to have an impact on the education of 4-year-old minority children in Dallas. This is a major interest to the residents of Dallas, for minorities constitute 85% of the student population in the city. The business community that is getting involved in education needs our help. You have heard of many "adopt a school" programs. We need to know what works and how it works. The business community had the patience to see major changes in communication and transportation of the past century; it should also allow changes in reform ample time to work. We all know that reform was not built in a day. The J.T. Breckenridge Program at the Jose Cardenas School, in the Texas Instrument pre-K project, will have an impact on thousands of minority children just in the next few years.

I encourage my colleagues to evaluate its success and look critically at any area of potential failure. We have to ask education leaders if their reading programs are working, and because many children attend these new schools with only a speaking knowledge of Spanish, we have to ask if the bilingual education programs are making a difference. We have to ask so much. What we need now is to consider the distinctive characteristics of the Latino population, to understand the community before engaging in research. Some communities change in ethnicity from year to year. A school near one high school that I taught in Los Angeles had 55 different languages, literally dozens of Spanish dialects. We need to encourage community involvement and assess the success of this involvement. In San Antonio, Los Angeles, and Houston, the Catholic church parishes have been instrumental in Latino grass roots organizations. What is the role of community institutions in school reform movement? And, finally, women have been instrumental in these community organizations. They have been the leaders of these organizations. The question is how can we train community leaders; what role can these community leaders play in school reform? Thank you very much.

RON HASKINS: Heather Weiss' work is as fruitful as anyone's in the country on programs that support families. Her academic appointments, research, writing, and consultation for the past two decades have centered on research intervention programs aimed at

strengthening families. She is perhaps best known for the State of the Art Conference, an edited volume on family support programs she organized in cooperation with the Bush program at Yale in 1983. A Harvard Ph.D. in education and social policy, Dr. Weiss consults with a wide array of family intervention programs and serves on an equally vast number of boards and committees, including the National Forum of the Future of Children and Their Families of the National Academy of Sciences. Since 1983, she has been the director and principal investigator of the Harvard Family Research Project. Her task today is to draw some useful generalizations from the three papers presented in this session.

HEATHER WEISS: I think of the Plenary Session as a kind of menu. We have heard about several different studies in child development. Dr. Feagans reported on language development and how that plays out as the child moves into school. Dr. McLoyd provided us with a very useful synthesis of what we know right now about child development of Black children in poor communities. Then, Dr. Romo provided an overview of where Hispanic children are right now and some of the challenges that they face. What I would like to do is talk about where we have come in our understanding of how to help children and to suggest some of the ways that we need to go in the future, as an effort to try to synthesize some of the things you have heard and to add a few ideas of my own.

What we have heard and what we began hearing from our luncheon speaker, John MacDonald, is the importance of family and child development, the importance of community and a renewed public commitment to working to try to strengthen families and communities as a context for development. I define community very broadly as including informal networks and schools. We have now a broader public commitment to that than we have had in some time; that brings new opportunities for researchers interested in making a better life for American children and families. We are well set up because of what has happened in the last 20 years of research. I want to highlight a few of those things. They are illustrated in some of the work we have heard today. First, when I started my own graduate training in education and child development, most of what I read were studies done of children in laboratories as part of formal experiments. The mother might have been present, acknowledging the importance of parent-child interaction, learning and, development, but often neither the mother nor any family member was present, with the child in an artificial situation in a laboratory. That was how we tried to understand development. If you think of what we heard today, we have come a long way. We now tend to do research in natural situations, and who is there is very different. There is a researcher obviously, but by virtue of it being a natural situation, it might be a teacher, as in some of the research that we heard about, or it might be parents. Fathers are now in the picture. Those of you who are as old as I am may remember some of the work Helen Bee did, when she revolutionized things by saying, "Fathers may matter." Now we know they matter even if we have not figured out exactly how. But we are working on that. I think what we are going after is much more complicated and much more sophisticated, as we have adopted more ecological models. We are trying to test some of those models.

In addition, there has been a growing commitment within child development research to understanding the way in which interventions work. Applied research is legitimate; I think that was less true 20 years ago. We also are recognizing that there is no generic family and that we cannot generalize from what happens in white middle-class communities to poor Black communities, to Latino communities, and so forth. We are beginning to recognize the limits of our capacity to generalize, beginning to recognize the need for more differentiated research questions that respect and probe cultural differences. We also are recognizing the importance of what Urie Bronfenbrenner has called person-process-context models of development in trying to understand children's development. We are now looking at development across settings, and we are now looking at development longitudinally, when we can get the money to do so. I want to describe an example of what I regard as a state-of-the-art study of this kind. Some of you may be familiar with the longitudinal study of Catherine Snow and David Dickinson being conducted in Massachusetts on children's language development. They started looking at children's language development when the children were 3-years-old, and they will follow the children into early elementary school. What I think is important about their study and is paradigmatic for those of us conducting research is that they are looking very carefully at the home factors that seem to contribute to children's literacy skills. They are looking at contributing factors in the preschool years and the interaction between those two. Eventually, they will be examine how those relate to children's performance in elementary school. They have not framed their research question in terms of what it is about the school or the family that predicts language development. They are asking what are the most important aspects of the child's context that contribute to literacy and they have a very subtle notion of what literacy is. And they ask how these aspects interact to contribute to that child's development in the early elementary years. They have what I see as key ingredients for our emerging research paradigm, the person-process-context research that is going to become the standard against which we will judge research that tries to understand development.

We are beginning to tease out what it is about interventions that contributes to their effectiveness. The research just described on early language development is a good example of this approach. Dr. Feagans homed in on a particular aspect of language development -- the capacity to respond to questions -- as a way to understand how the particular intervention that could stress some of those kinds of things achieved its affect for children. Similarly, Catherine Snow and David Dickinson have gone into the home to look at a variety of things that happen in the home context that could conceivably contribute to the child's language development. One of the things on which they focused is dinner time. When you look at the results of their research it is apparent that dinner time really matters. Families in which there is a chance for children to engage in a narrative and explanatory discussion are providing a context that then helps the children when they move into other settings, communicate, and engage in behaviors involving

literacy. They have gone into the natural setting, they have looked at dinner time, they have looked at the role that conversation in the family plays in a child's emerging literacy skills. By teasing out what is important, we can utilize that in interventions, knowing that dinner time may seem trivial, but it is not. In other words, family conversation matters. From Dr. McLoyd's presentation, we also know that dinner time is increasingly jeopardized in many families in this country. How many of the families she described sit down for a protracted dinner discussion? We know from 20 years of research on intervention and through the research that Dr. McLoyd presented that a lot of things are happening to families that make it harder and harder for them to provide the supportive contexts in which children develop. We need to look at those larger macro influences, including the economic influences she noted, to understand how to create larger contexts that are supportive of children, that allow families, if I can use the image, to sit down together and attend to being a family, attend to parenting, to put together the ingredients that we know contribute to children's development. I think the way we begin to do that is to incorporate the challenges that one of my mentors, Urie Bronfenbrenner, described a number of years ago, and that is to have a truly ecological approach to understanding development. An ecological approach looks at micro influences, like dinner time, painstakingly and carefully. It also attends to macro influences, such as those public policy influences that seem intractable and ungraspable, but which we know to have a very powerful impact on families' capacities to rear their children.

What are the challenges? I think we owe a great deal to people like Larry Schweinhart. Through work that has been done on early development/early intervention, we have built a case for the need to do early preventive-oriented interventions with families and communities. Most of you know the research. Now what? First, as researchers we need to pay more attention to <u>why</u> things work. What was it about the Abecedarian Project that seemed to contribute to early school success? Second, what are the important influences on children 's development? We need to craft research that looks at children, families, and communities. Through work that has been done by James Coleman and others we know that community variables matter, including social support and informal support networking. Community values matter. We have to start "unpacking" not only family processes that contribute to development, but community processes, and it is a challenge to figure out how to measure some of those processes and influences. We also need to start charting what it is that is happening to children in various communities. Previous presenters described some of the things that are happening to black and brown children in this country. I think researchers need to acknowledge what we do not know. A lot of what is happening to poor children in communities we leave to journalists and others to describe. We need careful description, good ethnographic work, to understand conditions under which these children are growing up.

We also need to pay more attention than we have to links between research and practice. We have attended in the last 20 years to the links between research and policy, but we have often forgotten the links between research and practice. We think we discover things, but what we have learned does not get translated to that teacher who is not responding to the type 2 errors. We have a lot of work to do as researchers to figure out how to be better communicators to practitioners, to government, and to other people. We need to figure out ways to increase communication so that our research does not end up creating only short-term gains. Perhaps the biggest challenge is to figure out how, as researchers, we can communicate the results of our research without so over-simplifying and so overpromising that we end up undermining our best intentions to help kids and families. I do not think that the enormity of that challenge can be underestimated.

Let me give you a personal example of these challenges. I remember being at a presentation for the National Council of State Legislators when Larry Schweinhart gave a presentation on the Perry Preschool Project's longitudinal results. One of the questions from the audience was, "Okay, I'm here from x Southern state. I have x number of dollars. You are telling me that it costs a certain amount to provide a high quality preschool program to kids. I want to dilute that and provide it to twice as many at half the price. Should I be doing that?" As a research community, we need to be able to address these kinds of questions; my suspicion is that we have to start saying, "Don't do it," particularly for certain groups of children that we know need more program, not less. This gets us to rethink the relation between research and policy, and, once again, to think about advocacy, but advocacy based on careful research and an understanding of what children need. For example, from what Dr. McLoyd said about the communities where the underclass lives, one cannot say that all we need is parent education. As researchers, it is our job over the next 10 years, given increased funding and interest in early intervention, to document what it is we need and why we need it, and then go into public forums and address the legislator that I mentioned. Say to that legislator, "If you cut it in half, you are going to dilute it and you are not going to get the effects you want. We know from a variety of research studies that have been done on the conditions of poor children that the families need more than parent education; they need more than WIC." We have to begin to build the case in such a way that we do not oversimplify what children need.

What is the role of research? That gets us back to advocacy, but a research-based advocacy. It means that our research has to be good because we ought to be darn sure we know of what we speak before we get out there and subject ourselves to the kinds of questions that public policy makers ought and should ask us about our research and the inferences we draw from it. It also means we need to start being mentors to other researchers, particularly researchers of color. If we are going to build better programs and a better understanding of development it behooves all of us to provide supportive opportunities for researchers of color in our universities and our programs.

And, finally, we need to formulate, with public and private support, a research core. I think some of you may know the Mellon Program. In an effort to get more young people into academia, the Mellon Foundation gives five year fellowships to people in post-graduate school to get their work out so that they can get on a tenure-track position at a university. I think we ought to translate

that idea into a child and family research core. We ought to set up fellowships for people to go to graduate school, and, in return, we would expect them to do three to five years of research in community-based organizations. This would provide an apprenticeship experience in research while contributing to our understanding of what it is that contributes to development. I think we need to be training people to do good research -- to build an infrastructure of good researchers who will help us understand what works to support American children.

Closing Session

Remarks: **Wade F. Horn**, Commissioner
Administration on Children, Youth and Families

Keynote Speaker: **Antonia C. Novello**, Surgeon General
United States Public Health Service,
Department of Health and Human Services

WADE F. HORN: It is my great pleasure to introduce the Surgeon General of the United States Public Health Service and the Department of Health and Human Services, Dr. Antonia Novello. Dr. Novello was sworn in as the 14th Surgeon General of the United States Public Health Service by Supreme Court Justice Sandra Day O'Connor on March 9th, 1990. This historic White House event was attended by President Bush and marked two firsts. Dr. Novello becomes the first woman and the first Hispanic ever to hold the position of Surgeon General. As Surgeon General, Dr. Novello advises the public on health matters such as smoking and health, AIDS, diet and nutrition, environmental health hazards, and the importance of immunization in disease prevention. She oversees the activities of 5,700 members of the Public Health Service Commission Corps. She received her medical degree from the University of Puerto Rico and later was awarded a master's in Public Health, with a concentration in health services administration from Johns Hopkins University.

Dr. Novello entered the United States Public Health Service in 1978, after working in private practice in pediatrics and nephrology. Until her appointment as Surgeon General, her entire Public Health Service career was spent at the National Institutes of Health, where she served in various capacities, rising to deputy director of the National Institute of Child Health and Human Development with responsibility for the direction and administration of extramural programs and the coordination of pediatric AIDS research. She also chaired the HHS task force on pediatric HIV/AIDS and co-chaired the NIH advisory committee on women's health issues. She is a board-certified pediatrician and a clinical professor of pediatrics at the Georgetown University School of Medicine and the Uniform Services University of the Health Sciences. She is the author or co-author of over 75 scientific articles or chapters pertaining to pediatrics, nephrology, and public health policy. She also currently heads the Department of Health and Human Services task forces on HIV infection in women and children, as well as the Healthy Children Ready to Learn Task Force and Initiative. As such, she is a great supporter of the Head Start program and believes deeply in intervention with disadvantaged children to ensure that all children, in fact, have the capacity to enter school healthy and ready to learn. Please join me in welcoming the Surgeon General of the United States, Dr. Antonia Novello.

KEYNOTE ADDRESS

ANTONIA C. NOVELLO, SURGEON GENERAL

United States Public Health Service,
Department of Health and Human Services

It is a pleasure to be here with you because Head Start is one of our proudest accomplishments. All of you here today are playing a role in Head Start's success, whether you are in research or working directly in Head Start programs. You are helping thousands of children become healthier, better ready to learn, and, more important, ready to live better lives. You are doing wonderful work, work that really matters, and for that I congratulate you. And because you have always been so successful, I have come here to challenge you to do a little bit more. You are already overstretched, but welcome to the world. We always ask the people who do more to do still more. I ask you to consider the broad spectrum of childhood needs in the country and the needs of adults who can benefit from Head Start. I ask you to lend your expertise to the Administration's crisis. I ask you to lend your expertise with AIDS. And each one of you in this room, whether health care professional, researcher, parent, or teacher, needs to share your experience with the many groups struggling to solve these problems.

I have realized as Surgeon General that health and education have to be together. In the absence of one, the other is totally incomplete. Head Start was created to make this concept real. And we know that it works. We still have problems reaching children who are not yet old enough to be a part of Head Start, and problems trying to reach people trying to enter elementary school. When I look at the successful programs in this country, I find that Head Start has produced impressive statistics; however, there are still severe gaps in services, and we are missing most of our children in this country. Anything that can be done to strengthen Head Start and reach the Head Start family of today and of the future is of the utmost importance.

This conference is a model for how research can enrich early childhood programs. It has brought all of you together, whether you are researchers, physiologists, health care providers, economists, or social researchers. It will take all of you who are here today to be able to help the agenda for the future. Your research will not only help to shape Head Start today, but will help to serve and protect families by developing objectives that show how it works and how we can extend the benefits beyond Head Start. In this country we have always been able to do protocols that look wonderful on paper, but if we are going to do scientific research dealing with Head Start, we have to take into consideration the people we are going to serve. I am very tired of forever seeing a wonderful report that is not utilizable for the people who were meant to use it. In that sense, when you look at the research in this country and the agenda that we are about to set for research, do not waste your time going to the high places. Go and ask the people of Head Start -- ask the teachers of Head Start and ask the families of Head Start. Only by seeing it through their eyes and feeling it through their needs will you be able to draft an agenda that is comprehensible and attainable. Otherwise, it is one more protocol, which this country and this department is full of.

So many human problems can be traced to poverty. Most of the things that I see today overwhelm me with a sense of hopelessness. Dr. T. Berry Brazelton said something very important. He believes that the possibility for a child to flourish or to give up is established very early in life. He says that "the crucial variable is the child's expectation that the world will be consistently interested, supportive, and encouraging." He believes that children sense and acquire the helplessness of their parents and are particularly at risk in single-parent households where the parent, usually a woman, is very poor. Recent reports tells us that a quarter of American babies are born to single parents, and these children, these mothers, are very vulnerable in today's complex and ever-moving world. A CDC report said that, by race, infants born to single women represent 63% of the Black babies born in the United States, 34% of the Hispanic babies, and 18% of the white babies. I tend to believe that these statistics really are the children of Head Start and their mothers. This is the future generation to whom we have to start paying attention.

I am very proud of Head Start and what it has done for the country in a quarter century, especially realizing that 25 years ago Project Head Start was only a summer child development program for children from low-income families. Today it is viewed as one of the nation's most successful social programs, serving over 500,000 children. It has matured into a comprehensive and multi-faceted full-year intervention program that supports the development of children, their families, and their communities. Twenty-five years ago I worked in the summer Head Start project, and the things that we brought to that community were unbelievable. We brought health and nutrition to people who never even knew why it was important to be weighed. That was 25 years ago, and I do not believe that Head Start can be stopped. On the contrary, it will continue as the best program that we have to offer to the nation's children.

The wisdom of Head Start and why it is so important is that it sees and cares for the family unit as a whole. It has been able, by so doing, to change the lives of parents and the lives of families and the lives of children in the future. Many parents and employees of Head Start have gone back to school or on to a higher education.

A lot of people would have written off these children from Head Start. A lot of people would have said that all the goals of Head Start were unrealistic. Perhaps the essence of true creativity begins by being unrealistic. We often accomplish more when people say it can't be done. I would like to quote Brazelton again. He said, "I have begun to regard the growing neglect of poverty of the young as the biggest threat to the nation's future."

I also see evidence that we could start preventing the terrible waste with remedies available right now, but we do not seem to have the will to even think about that. I believe that if we have lost the will to even think about these problems, then we have already given up on the children, not to mention the parents of those children.

I do believe that we have to translate rhetoric into action start pushing up our sleeves and working instead of talking about it. When we start seeing only the negative, it starts taking over, and we do not see the light at the end of the tunnel.

Children in this country today are the poorest of society, with more than one in five living in a household where the combined income is below the poverty level. Despite medical advances, the United States mortality rate is still equal to that of Third World countries. Every day more than 100 babies in this country die before their first birthday.

Poverty is a carcinogen. Poverty in America is tangled with race and ethnicity. It does not matter what we tend to say, but they are intertwined. Experts say that two in three poor children are White, Latino, Asian, and Native American, and one-third of poor children are Black. A Black child is more likely to be poor than a White or Latino child. However, during the 1980's, Latino poverty grew faster than any other group. Today 2.6 million, or one in three, Latino children are poor. Although there are many poor children in cities, the child poverty rate is higher in rural areas than in the rest of the nation.

Whenever we talk of poverty, we talk only of economic need, rather than other kinds of poverty. Despair is a type of poverty, not knowing the ropes in society is a type of poverty, loneliness and the lack of extended family members is also a type of poverty, and lack of knowledge and hopelessness are also types of poverty. When we think of ourselves, even though we are well off and comfortable, we know the ropes and we have friends. We know it will take just a little incident in our lives, like not accomplishing what we set out to do, to make us feel poor of spirit, if not alone. We are easily discouraged -- and that is us, the ones who have means. Then think of poor people. Think of a mother and a very little child. How can a mother who is discouraged and hungry encourage and nourish a child who is hungry, too?

Realities of life must be considered when addressing successes or failures regarding the populations that we are about to serve. I would suggest that research be done on the type and intensity of social repair needed for families at different levels of deprivation. I would think repair would multiply with deprivation, and the more damage and deprivation, the more help the children and the parents are going to need.

Perhaps the worst thing is that such problems pass from generation to generation and people believe that the cycle cannot be broken. But one of the beauties of Head Start is that, somewhere along the way, we believe that this pattern can be broken, and this has been proven by most of the data that have come out of your studies. Even with help, food stamps will not pay for heat and light. Even with food stamps, any emergency can cut into any kind of family's budget. A birthday, a holiday, or any celebration, no matter how small it is, cuts into the everyday food budget of the family. Some families go without electricity. Some families go without plumbing. But most families go without food. And when you do not eat, you cannot make the decisions that are relevant for your family. When I talk about women, and with women out there, most of them tell me, "Dr. Novello, the case-management program is wonderful, but when I have 14 people asking me the same question 14 times, there has to be a way by which one of those tell the other 13 what is going on and stop asking me once and for all." I do not believe that, because when you are poor you have to go to 14 places to get the things that this country owes you.

When you are poor and hungry and you are a child, you tend to believe that love is commensurate with food and caring. We really have to think about that as we draft policies for the future. Poverty is too real. It has very long arms, and it is touching each one of us no matter where we come from. We are all trying to wrestle with the problem of children who do not have enough security, enough money, enough stimulation, enough health care, or enough fun -- and there is nothing out there to help them grow healthy and ready to learn.

When I think of the year 2000 objectives, in my own heart I worry, because somewhere along the way we made it our one chance to do something for this country. But by doing this are we forgetting to ask, "What do I want to do in '91? What do I want to do in '92, '93, '94?" I hate to believe that in the year 2000, I am going to wake up and say, my God, I haven't done anything to accomplish these objectives. I believe that the complacency may be sitting right here, right now, as we look at the year 2000 without thinking what we need to do in '91 to be able to accomplish that.

Studies have shown that single women have a 50% higher chance of having low birth weight babies. And single women are also more likely not to have prenatal care and are more likely to abuse alcohol and drugs. Is despair and dejection absent in women? Or is it just present in children? Some of those single-household mothers are as poor as anybody in this country. So, when we draft programs to help the poor, you must look at them through the eyes of the women, the caretakers who happen to be the women. And for that, you have to understand poverty in the whole sense of the word. I am still disturbed by the fact that 18% of newborns in some city hospitals are prenatally exposed to alcohol, crack, and other hard drugs. I get upset when I see children born with fetal alcohol syndrome, children born with crack addiction, when we probably could be preventing it. As a society we accept too much too readily. Too often we throw our arms up and say, "What can we do?" We have come to believe that anything that is acceptable is O.K.; that violence is normal, that addiction is common, and that abuse of alcohol can be accepted in our society.

I think sometimes we accept defeat too readily. People tell me that the message of those in the health professions is too negative. I believe that from now on the messages of health care have to be stated in a way that makes people perceive that there is still something they can do about it. I pray for a time in this country when we reject the notion that poverty is O.K., that children being poor is O.K. and that women being dejected is O.K.. This country is too rich to allow that to become the norm. But Head Start can make a difference. For example, we have problems with dental care in this country, but in Head Start 98% of the children had dental appointments and 96% of them have all of their dental problems taken care of. People will say, "Yes, but that's Head Start." No, it is the dedicated volunteers and the dedicated parents and the dedicated community that make it happen. I think you have to hear it from me, that somebody else knows what you are doing more than you yourselves know. Too many times people tell us what is wrong, but people take so little time to tell you what you do well. And that is why it is good in this conference for me to tell you that I read everything you do from teeth to a life.

We also have heard that this country has a problem with immunization. But then I look at the immunization rate of Head Start families. This country has to learn from Head Start, because your immunization rate is better than anyone across the country. Head Start has a lot of show to this country -- when you get yourself organized, you can get all the children vaccinated. I believe that immunization for children should not be something that is given. Immunization for children is a right. When children are born they should be vaccinated, they should not be worried that it costs too much or is not available. When we are serious about immunizing children, we will make clinic appointments at the time that is feasible for the family to come. It will have to be feasible for us to vaccinate not only the one with the appointment, but the other four children that the mother brings with her. It will be feasible for us to make sure that, when we hit that child with one vaccination we hit him or her with all the ones he or she has not gotten for the last five years. We have to make our clinics friendly. We have to do something across the board. We have to do it for the poor and we have to do it for the middle class and we have to do it for the rich. Immunization has to be a right. But our clinics have to meet the guidelines for the family, not for the clinic. And that is how we are going to be able to take care of the immunization crisis in this country.

Alcohol is another problem in this country. I am tired of attending lectures in which the call is, "Thank heaven my son drinks." No one believes that alcohol is a drug, as dangerous as any other. When I read the Inspector General report, there were four things that flabbergasted me. One was that, of 20 million adolescents in this country, 10 million drink and half a million drink weekly -- most of them drinking five shots at a time. Most of them did not know that a can of beer and a shot of whiskey contain the same amount of alcohol. The data on the adolescents who did not drink show it was because the parents, the school, and a little bit of the media made the difference. Adolescents drink because they are upset. They drink because they are bored. But contrary to what we always thought, they drink alone. So it is not peer pressure. They drink alone. I am afraid that we are already looking into the alcoholic generation of the future. Two out of three do not even know how to differentiate the label on a can of juice from an alcoholic beverage, just because they are marketed to look the same. You have to know the data to be able to deal with the problem. Ninety-two percent of them knew that drinking and driving was not O.K. Yet seven million out of the 20 million will ride with their peers who are drunk because they are more afraid to call their parents in the middle of the night. When the kids talk to me, they say, "My parents talk to me about alcoholism with a drink in their hand. And, second, my parents never believe that my problems are big enough for them to waste their time, so they tell me to go to my room. Please remind my parents that punishment for me is not going to my room where I have my Nintendo and MTV. Punishment for me is talking to them." So, when you want to punish them, talk to your children.

Think about AIDS. I just came from the Florence meeting. As women, we all should be cognizant of our vulnerability in the second decade of AIDS. We always felt that this was going to be a disease of IV drug abusers and homosexuals. This is no longer the case. Women are at risk and women will need protection. In the presence of that data, we have to take that information to our Head Start families and our Head Start youth. If there was ever a day when we thought that women would only be caretakers of AIDS patients, the day is long past. And if there was ever a day when we thought women could not be infected or infect others because they are heterosexual, that day is also long past. I believe that AIDS is going to change the life of many of us in the years to come. Preventing transmission of the HIV infection to women and infants is an urgent public health issue and we have to deal with it. There are many factors, mostly economic factors, fear of criticism, or abandonment, that impair women's ability to protect themselves from AIDS or, if infected, to protect others. Research on the impact of AIDS on Head Start families would be very valuable. Certainly Head Start can become a trusted source of information with families regarding AIDS, and this will be an invaluable contribution to your Head Start family.

As Surgeon General, I can do a great deal. I can talk my head off, and I can speak from my heart every time I am in a place where I have people listening. But the Surgeon General is only one person, and the Surgeon General has to make sure when she talks to forums like this that they become the extension of the pulpit, so that she must follow. I can tell you we have a great deal to do, and I do not believe we have much time. As I told you, when I look at the year 2000, I only think of nine years that I have to get all these kids together. Because, by the year 2013, all of us baby boomers would like to retire, and there might not be a labor force ready to take over if we do not protect our youth today. In that youth, you have the biggest responsibility, because you will shape not only the children, but the parents of those children to be. I have to listen to you and I will have to listen to everything that will come out of this particular conference with the agenda for research. I think we must reach more children with Head Start. I have the feeling that we are committed to make this a reality, and I can tell you that we are committed to providing at least one year of Head Start to all eligible children before they enter public school. Currently, although Head Start is carrying out a major expansion, this program will need to stretch, to grow, and to adapt to meet the diverse needs of an increasingly diverse population. Your research will be needed to tell us what works, how it works, and where it works. I think the country will benefit a lot by you being able to share that with us.

As you undoubtedly know, the National Commission on Children has just issued a valuable and provocative report. It reflects America's concern for and about the children. I think we have to study this very carefully. A quote in the report came from a poet from Chile named Gabriela La Mistal, and she said: "Many things we need can wait. The child cannot. Now is the time his bones are being formed. His blood is being made. His mind is being developed. To the child, we cannot say tomorrow. To the child, today is the day." For that, I think Head Start is wonderful, because it recognizes the importance of this quote and ascribes an action plan to it. We must always remember that the children cannot wait, and Head Start is the only program that, as it moves a research agenda forward, will be able to make this a reality.

We join today in recognizing the urgency of childhood and the urgency of a childhood research agenda that benefits Head Start. A day wasted today can be a child's life wasted tomorrow. Let us not look away from any of the Head Start issues, and let us not look away from today's problems that are perceived negatively. Let us take heart and make sure that rhetoric is stopped and action begins. We must not get discouraged. We have to remember the difference that each one of you makes in the lives of children. And when you get discouraged, just think that to yourself, because someone else is thinking that at the same time with you. Think of the people who remain forever grateful for the things that you did that no one knows about except you and that person.

There is a consensus among all Americans -- business leaders, policy-makers, educators, and child development specialists -- that Head Start makes sense. Your work and the work of those who came before you has made Head Start a totally American program in every way. Head Start has won the heart of America. Head Start has won the respect of the Surgeon General. I want you to be proud of what you accomplish, because I am certainly proud of your accomplishments.

In order to move the agenda for children in this country, more than a commission is needed. It will not be done by the government alone. It will be done by the people of Head Start - volunteers of Head Start and parents of Head Start.

WADE HORN: Dr. Novello, we appreciate your closing the conference with such an inspiring speech. But you have also offered us a challenge. We hope that you have motivated us to continue our work in meeting the needs of at-risk children and families before the year 2000. We will certainly make every effort to meet that challenge.

I know that the members of the audience are very tired after such a full and stimulating two and a half days. The last thing you want to do is hear me talk again and keep you here, so I am not going to do it. I am just going to thank you all for attending this conference.

PANELS

Panel 100 CHILDREN'S MENTAL HEALTH: EARLY INTERVENTION STRATEGIES

Chair: **Mary Evans Robinson**; *Discussant:* **Leon Rosenberg**

At-Risk Children: Interaction Styles with Parents and Peers *Timothy J. Iverson, Marilyn Segal*

Diminished social competence in children is a well-documented consequence of child maltreatment (e.g., Hoffman-Plotkin & Twentyman, 1984). Quality of attachment has long been thought to be an important determinant of social competence in young children, and there is an increasing body of research which directly investigates the relationships between the quality of parent-child interaction and the peer relations of young children (e.g., Derham, Renwick, & Holt, 1991). This paper discusses the social competence of physically abused and neglected children in a therapeutic day care program, and explores similarities between the interactions of these children with their peers and with their parents. In addition, changes in the peer interactions following involvement in the therapeutic program and implications for early intervention are discussed.

METHOD: The therapeutic day care program, operated by the Child Care Connection of Broward County, includes the placement of at-risk children in a supportive day care environment and the provision of therapeutic services for both the children and parents. The children attend a therapeutic play group during the day, which includes activities to improve communication, recognize and express feelings, and increase social competence. The parents receive group therapy one evening per week, which focuses on social support, parenting skills, and stress management. The children also attend the parent group on a regular basis to provide the parents with in-vivo support and guidance for effective parenting.

This paper is based on data collected between November, 1986 and December, 1989 as part of an ongoing evaluation of the therapeutic day care program. Physically abused and neglected children, between the ages of 3 and 5, were pre-tested in cohorts based upon time of entry into the program and post-tested six months later. The children were from families of low socioeconomic status, eligible for Title XX day care services, and identified as maltreated by the protective services division of the Florida Department of Health and Rehabilitative services. The pre and post assessments consisted of a developmental assessment (e.g., The McCarthy Scales of Children's Abilities), a measure of receptive language (PPVT), drawings, and free-play observations with the Behavior Observation Record. The observational data for two of the groups of maltreated children for which matched comparison groups were available (sample 1 included 7 physically abused, 9 neglected, and 15 nonmaltreated children; sample 2 included 9 physically abused, 9 neglected, and 15 non-maltreated children), along with cumulative impressions from the larger sample serve as the basis for this paper. Parent-child interactions during a task involving making a puppet from paper and popsicle sticks were available for the nine physically abused, nine neglected, and 15 nonmaltreated children.

Both peer interactions and parent-child interactions were coded with the Behavior Observation Record (Iverson & Segal, 1986), which is a time/event sampling instrument designed to assess the presence of 35 discreet interactive behaviors and the nature of the response elicited by the subset of these behaviors, which involve social initiatives. The behaviors to be observed are grouped into four general categories: child alone, child approaching others, child being approached, and child interacting with others. Children are observed in 10-second intervals, and the occurrence of a behavior is coded with a plus (+), minus (-), or zero (0). In the categories of Child Alone and Child Interacting with Others, the plus, minus, and zero reflect positive, negative, and neutral affect, respectively. In the approach categories, these ratings reflect the elicited response; for example, if a child approaches a group with a question ("Can I play too?"), this category would be coded with a + if the child was received into the group, a - if the child was overtly rejected, and a 0 if the child was not responded to in any fashion. In this way, the Behavior Observation Record captures both the occurrence and consequence of the social behaviors. The interobserver reliability based on percentage agreement across time intervals ranged from .74 to .92.

RESULTS: Observation of the children during free play showed that the maltreated children interact less often and less effectively with their peers that the nonmaltreated children (Iverson & Segal, in press; Iverson, Tanner, & Segal, 1987). The nonmaltreated children typically interacted with others 70%-90% of the time on the playground. When observed at pretest, shortly after beginning the therapeutic program, the physically abused children usually showed similar or slightly lower levels of interaction, usually about 50%. The neglected children spent the least amount of time in ongoing play interaction, interacting only about 20%-30% of the time they were observed. This pattern, the neglected children interacting significantly less than nonmaltreated children, with abused children falling somewhere between the two, was one of the most consistent findings across samples.

In addition to the amount of time spent interacting, we also looked at the effectiveness of the social initiatives of the children. This was done by comparing the number of times a child was accepted into a group or was responded to positively when the child attempted to initiate a social interaction. For Sample 1, the percentage of approaches to which the children received positive responses is 45% and 25% for the physically abused and the neglected, respectively, as compared with 72% for the controls. Sample 2 shows more competence in initiating interactions, but again there is a consistent pattern in which the neglected children show the greatest deficits (36%) and the nonmaltreated children appear the most socially competent (96%).

Parent-child interactions were investigated in one maltreatment sample by videotaping the child and parent coloring and gluing a puppet. The Behavior Observation Record and the same coding strategies were used as with the children on the playground, and the patterns in the parent-child data were very similar to the patterns for the peer interaction (Iverson & Segal, in press). For example, the amount of time the parents interacted with their children on the puppet-making task was significantly less for neglected (6% of the time interacting) and abused (8%) children as compared to nonmaltreated children (34%). The overall low levels of interaction on this task is presumably due to the parents' perceptions that the task was primarily for the child, and no instructions regarding the parents' roles were provided. In terms of the children's initiatives, nonmaltreating parents responded to question and comments more positively than either of the maltreatment groups (98% compared with 65% and 47%). When a child's comment or question was not responded to positively, the parent typically did not respond at all; no overtly negative or rejecting responses were noted in this activity. Nonmaltreatment parents almost always responded to the comments of their children, whereas the maltreatment groups typically let the comments or questions pass without responding. A comparison of positive responses by peers and positive responses during the parent-child activity highlights the consistency with which these children are responded to. In fact, positive responses by parents on the puppet-making task were highly correlated with time spent interacting on the playground ($r = .50$) and unsuccessful initiatives with peers ($r = -.65$). In short, the interactions of the children with their parents paralleled their interactions with peers. Parents who responded positively to their children had children who interacted more with their peers and were more successful with their social initiatives. Children who spent more time working alone on the parent-child activity or were ignored by their parents were ignored more by their peers on the playground.

When the children in these samples were observed on the playground after six months in the day care program, improvements in the social behavior of the maltreated children were evident. Most notably, there were dramatic increases in the amount of time spent interacting, particularly for the neglected children. Although the comparison group showed little change over the six months, both the abused and neglected children were now interacting over 50% of the time, and the levels of interaction did not differ statistically from the nonmaltreated children. The neglected children also showed increased efficacy in their social initiatives; in one sample the percentage of initiatives that were positively responded to increased from 25% to 70% over the six-month period. The gains for the physically abused children were not as clear or consistent as with the neglected children, perhaps because their deficiencies in the peer interactions were not as marked to begin with.

The use of the nonmaltreatment comparison group suggests that the gains in social competence can be attributed to the early intervention. Several aspects of the intervention probably contributed to the gains, including enrollment in a supportive day care environment, the therapeutic play groups, and the therapeutic groups for the parents. While the efficacy of the intervention for improving the social competence of maltreated children with peers was shown, two important questions remain. First, it was not demonstrated whether the interaction patterns changed in the family as well as in the day care setting. Second, there is no way of determining from the data the degree to which different components of the program (e.g., parent groups, supportive day care) contributed to the changes in the peer interactions of the maltreated children.

Involvement in the therapeutic program resulted in increased social competence for maltreated children in these samples, providing support for the efficacy of early intervention with this population. Future research is needed to delineate the most efficient intervention strategies. For example, is the provision of supportive day care and/or play therapy alone sufficient to lead to improved social competence? On the other hand, given the similarities in interaction styles with parents and with peers, would addressing only the parent-child interactions lead to improved social competence in other settings? Our challenge is now to identify the optimal combination of intervention strategies and increase the accessibility of the services we know are effective to the victims of child maltreatment.

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Parent Involvement in Their Children's Developmental Play Sessions *Louise F. Guerney*

The method referred to is Filial Therapy or Child Relationship Enhancement Family Therapy (CREFT) (Guerney, 1983), as we have recently labeled it. The central core of Filial Therapy or CREFT is the inclusion of parents as change agents for their problem children, using child-centered play therapy (Axline, 1969) as the therapeutic medium, under the instruction and supervision of a CREFT provider, completely trained in the method (for a fully detailed description, see L. Guerney, 1983). It is our opinion that any interested professional providing services to children, such as teachers, day care providers, nurses, caseworkers, and counselors, can legitimately and successfully be trained to offer CREFT. Thus, the therapy is in the hands of those responsible for seeing that change occurs. For those unfamiliar with the child-centered play therapy model, training first in play therapy and gaining experience in providing it directly to children with adjustment problems would be necessary. Teacher provision of play therapy has been shown to be effective in overcoming school adjustment problems (Guerney & Flumen, 1969; Ginsberg, 1978). In a still ongoing study, Cosner (1990) has demonstrated that child welfare caseworkers can be trained to conduct play therapy, and, further, to train foster and adoptive parents, and, more recently, abusive and neglectful parents to do so, resulting in positive child and parent changes.

Another feature of CREFT is that it bypasses all reproof or blame of parent or child, so very difficult to avoid when pointing out a child's classroom shortcomings and so destructive in maintaining positive parental involvement. Trained educators would recommend CREFT involvement focusing on its positive potential and would downplay any parent errors; new knowledge and skills should help parents be more effective and confident. Whether school faculty offer the CREFT program or whether private or agency practitioners are the providers, it is still necessary to motivate parents in this way to recognize the potential benefits of their participation in a program designed to help their child and themselves.

The child is observed in the school or day care setting. When all observations are completed, the information from all sources is collated to provide a description of the child's behavior in all major contexts. The cross-contextual information permits the identification of patterns and of antecedent conditions related to inappropriate child behaviors. Frequently, observations reveal that minor frustrations for the child, which ordinarily would go unnoticed, precede aggressive, stubborn, and resistant behaviors.

All of our observations and conclusions are shared with the family. Assuming CREFT is recommended, the link is made for the parents between CREFT goals and methods and the child's needs. Family needs are inserted only after parents themselves have defined them. If parents are still blaming the school, the link would be phrased only in terms of the value of parent involvement to change the child through play therapy. If parents have accepted a need for help for themselves, the link would also involve the value of the skills the parents will learn to help them function more effectively as parents. In both instances, a rationale for the value of play therapy for helping children with such problems is provided.

The link between parents playing therapeutically with their child and a problem in the classroom is not as easy to see; special effort to clarify this connection must be made. Parents are told that, unlike more behaviorally oriented therapies, this model of play therapy is not directed toward specific problems, but is generic in nature. That is, it is aimed at improving self-esteem and feelings underlying inappropriate behaviors. These are generally frustration/anger, performance or social anxiety, and fears of many sorts, such as separation and abandonment or concerns about personal safety, etc. These feelings are manifested through inappropriate and maladaptive behaviors, but these can be changed by addressing the underlying feelings through encouraging the child to play them out in the safe, interpersonal atmosphere of a play session in the presence of a warm, caring adult. The adult labels the feelings aloud for the child and accepts them without criticism, denial, or efforts to provide reassurance that there is no need for them. The adult does not teach, judge, evaluate (positively or negatively), or otherwise inject his/her more mature viewpoint. The session is truly child-centered in that the child selects and directs all conversation and activities in the way that he or she desires. The theory of the Rogerian/Axlinian method (Axline, 1969) is that this "expressing-labeling-accepting sequence" will desensitize and dissipate negative feelings and assist in self-acceptance and self-regulation. If the child believes he/she is acceptable, there will be no, or at least less, need to behave in socially inappropriate ways. Needed behavioral control follows the resolution of feeling dilemmas and extends across settings. For example, if anger is reduced, inappropriate anger displays will cut out in multiple stimulus conditions.

There is a second essential component to this type of play therapy, which also contributes to increased self-control. This is the setting and enforcement of play session limits in a clear and consistent way. This limit approach puts the regulation of "within-limits behavior" into the hands of the child, so that she/he must comply with the limits or instead experience the consequences (usually removing the offending object or ending the session for the day). Once the limit and the possible consequences are understood by the child, there is no prompting or warning. The child is entirely responsible for adherence. The limits are few and primarily on aggressive expression, but they are so consistently and tightly enforced that the child experiences an opportunity to see clearly and immediately the relationship between his/her behavior and very specific outcomes. But most importantly, the child is responsible for the outcomes by virtue of his/her own directing and knows it.

I would like to discuss this limit component at greater length here because of its critical contribution to the success of both play therapy and CREFT, and because it is a concept that people tend to have their own notions about, particularly parents. Parents of children with control problems tend to fall into two categories: those who over control and those who are too tolerant or erratic in their demands and enforcements. Learning how to operate more appropriately on the control dimension themselves in order to eliminate feelings of distress in their children (resulting in misbehaviors) is an important contribution of the training of parents to do

play therapy. To explain the method to parents, it is not necessary to cite shortcomings. The concept to convey is that knowing how to provide children with few but predictable limits, and consistently enforcing them with consequences that are age- and infraction-appropriate, will be helpful to their children. If parents themselves identify errors in their child controls outside the play sessions, the therapist attempts to direct parent energies to the positive acquisition of new skills and their benefits. In addition, strong emotional support is provided to parents, because control issues usually have an emotional basis that goes beyond simple knowledge deficiency. Progress impeding defensiveness is avoided by the careful attention to and empathic understanding expressed toward parent feelings, as well as the children's. In essence, leaders relate to parents in the same supportive ways they are teaching the parents to relate to the children (Andronico, Guerney, B., Fidler & Guerney, L., 1967).

Our preferred training format involves a weekly group of six to eight parents, with two or three parent couples (we work very hard to include fathers), and two to four single parents, usually mothers. This means that 6 to 14 children are involved in play, since we include all siblings as well as the target children. In large families, we use strategies to keep manageable the amount of playing that parents need to do. Too big a burden will result in the parents' withdrawal from the training. We prefer to create groups that have parents of children with a variety of problems, rather than only children with control problems or who are withdrawn. A mix of both major problem types (i.e., control and withdrawal) will provide more balanced viewpoints by parent participants, and the diversity enriches the group. When it is inconvenient for CREFT providers to assemble groups, equally successful work can be done with individual parents or couples. Training procedures are the same. The richness of the group format is traded off for much shorter treatment times when only one family's children are involved.

CREFT is divided into five stages: observation and demonstration, practice, home sessions, transfer, generalization, and phase out.

Observation and Demonstration. Instruction on how to play therapeutically begins with the trainers playing with all of the children of the group while all of the parents observe. Discussions of goals and rationale, observed child responses, etc., follow. Specific adult responses and decision making for their use in play sessions are taught and then rehearsed in role-playing format. An enormous amount of positive reinforcement for all movements in the desired direction is given. Progression through the training is based on mastery of previous steps.

Practice. Each parent plays a minimum of two times with his/her children under the observation of the trainer. Feedback follows, with a thorough discussion of how the parents felt relating to their children in this new way, as well as other related parenting topics. While the trainer is always empathic and understanding, the task orientation of learning to master therapeutic play is always paramount (Andronico, Guerney, B., Fidler, & Guerney, L., 1967). Therapists and parents alike accept this goal since it is a manifestation of the essentially educational nature of the program. Should a personal problem arise for a parent, it is discussed outside the group and/or referred to the appropriate professional for handling.

Home Sessions. After demonstrating minimal proficiency, parents are assigned the responsibility of playing at home once a week with their children for 30 to 45 minutes--the longer time for school-aged children. Careful structuring for the "when and how" of setting up the home sessions is done for each family. Toys for use only in the play session are provided. In the common event that parents have no space for home sessions, arrangements are made for the child to play in the school or other treatment site. Home play usually continues for 10 sessions at the rate of one, or maximally two, a week. Parents also continue to play with their children at the treatment site at the time of the weekly meeting so that the parent's continued adherence to the method and the child's improvement can be monitored.

Transfer, Generalization, and Phase-out. When parents can identify positive changes in their children's behavior in the playroom and note the effects of their own play session responses on their children, it is time to help them recognize situations in life outside the protected playroom environment where the same types of accepting responses and limit sequences can be used. Following at least minimal success in transferring and generalizing skillful responses to real life situations, we introduce our parent education program, Parenting: A Skills Training Program (Guerney, 1987), which extends the empathic and limit-setting methods of the playroom and adds the skills of parent messages, reinforcement, and strategies for knowing which skills to use when in everyday life.

Having completed all of the stages outlined above, both parents and children typically have made positive, significant changes in their playroom behavior, on measures of child behavior in the home and outside settings (Coufal & Brock, 1985; Guerney, L., 1979; Wall, 1979). Group change scores indicate that parental acceptance increases (Glasser, 1986; Sywulak, 1979), and child and parent attitudes and behavior remain improved three to five years later (Sensue, 1981).

Empirical data on programs conducted by non-clinical personnel in non-clinical settings have confirmed that teachers (Guerney & Flumen, 1970), college students (Stollak, 1975), and social workers (Cosner, 1990) can learn to conduct play therapy themselves and to teach parents to do so (Cosner, 1990; Ginsberg, Stutman, & Hummel, 1978; Guerney, 1970). CREFT, with its core tool of child-centered play therapy, has a respectable history of effecting change, maintaining change, and improving parenting attitudes and skills in follow-up. Play and a focus on family functioning (Winton & Bailey, 1990) (albeit primarily for assessment purposes) are finding their way more and more into the world of the early/special childhood educator. Learning to use play therapeutically to augment their own work with children to learn how to reduce parent resistance and further to empower parents through the use of the "parents as positive change agents" strategy, could enlarge and enhance the repertoire of the early/special childhood educator. Since CREFT is essentially an educational intervention (even though it includes support for parents around

child-related emotional issues), it avoids deficit and pathology implications and promotes positive messages to parents about their own and their children's potential for growth and the effectiveness of early childhood interventionists.

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Parent-Child Interaction Therapy with Acting-Out Preschoolers: A Review of Treatment Outcome and Generalization to the School Setting

Toni Hembree Eisenstadt, Cheryl Bodiford McNeil, Sheila Eyberg, Katherine Newcomb, Beverly Funderbunk

I have four major goals for my presentation. First, I want to give you a brief description of a therapy approach for preschoolers called Parent-Child Interaction Therapy. Second, I will present some of the results of a recent treatment outcome study i did using this approach with behaviorally disordered young children. Third, I will give you an overview of a study showing the effectiveness of Parent-Child Interaction Therapy for improving the classroom behavior of acting-out preschoolers. And fourth, I want to offer some ideas for future work incorporating Parent-Child Interaction Therapy into Head Start Programs.

Parent-Child Interaction Therapy, or PCIT, is a family therapy approach for preschool-age children that draws on both traditional play therapy and behavioral methods (Eyberg, 1988). It is based on the Hanf (1969) two-stage model of intervention and was developed by Dr. Sheila Eyberg, now on the faculty at the University of Florida. Most research conducted on PCIT has involved young children with diagnoses of Oppositional Defiant Disorder, Attention Deficit Hyperactivity Disorder, or early forms of Conduct Disorder (e.g., Eisenstadt, Eyberg, McNeil, Newcomb, & Funderbunk, 1990). However, clinical experience with PCIT indicates that it may be an effective intervention for children with developmental delays and those with internalizing problems such as anxiety, social withdrawal, and insecure parental attachments.

PCIT is conducted in two stages. The first is called Child-Directed Interaction, or CDI, and the second is Parent-Directed Interaction, or PDI. Progression from one stage to the next is based on the individual family's rate of improvement, but most finish therapy, in about 12 to 14 sessions (Eyberg & Boggs, 1989). PCIT draws on several methods of therapy, including didactic presentations, therapist modeling of parenting skills, and role-playing. However, the primary method of helping parents learn to communicate more positively and manage disruptive behavior is the use of direct coaching of skills through a bug-in-ear microphone device. Parents interact with their children in a playroom while the therapist observes through a one-way mirror. The therapist provides immediate and ongoing feedback to parents through a hearing aid-type device. As parents' skills improve, the therapist gradually relinquishes responsibility for designing interventions. Instead, the therapist guides the parents through an analysis of the problem and allows them to draw on what they have learned in order to design their own intervention. This strategy is effective for helping parents to feel more expert and competent in their parenting role and helps to promote maintenance of improvements after weekly therapy sessions are terminated (Eyberg & Boggs, 1989). In many cases, generalization of parenting skills is promoted through in-vivo work involving coaching of skills in other settings such as the playground, shopping mall, or grocery store. Overteaching of skills and child compliance is used in order to ensure that once treatment is concluded, normal "backsliding" will not be great enough to wipe out treatment improvements.

The major goals of CDI are: 1) enhancement of the parent-child relationship; 2) promoting positive self-esteem; 3) teaching prosocial behavior; 4) teaching social skills such as sharing, turn-taking, and polite manners; 5) decreasing negative

attention-seeking; 6) improving frustration tolerance; and 7) increasing the child's attention span. To address these goals, parents use a set of communication skills with their child in a brief daily home "play therapy" session. They are taught to allow the child to lead the play by avoiding commands, criticism, and questions. Parents are taught to reflect appropriate speech, describe the play activity, imitate the child's play, and provide large amounts of praise for prosocial behavior. Negative attention-seeking behaviors like whining and sassing are ignored and the play session is terminated if destructive or aggressive behavior occurs (Eyberg & Robinson, 1982).

The major goals of PDI are to: 1) increase child compliance with parental commands; (2) decrease disruptive behavior, such as destructiveness, physical and verbal aggression, and temper tantrums; 3) improve impulse control; and 4) improve behavior in public settings, such as restaurants, stores, and in moving vehicles (Eyberg & Boggs, 1989). These goals are addressed by teaching parents to use effective commands, consistent praise for obedience, and a detailed time-out procedure for disobedience. After the child's compliance improves, standing rules are established for the household, which are enforced using time-out. Use of effective command giving and time-out is then extended to more difficult situations, such as shopping trips and car rides. Parents gradually assume greater and greater responsibility for solving behavioral problems as the therapists move from a directive to a supportive role.

The following is an example of the types of relationship changes we often see following Parent-Child Interaction Therapy: This is a single mother on welfare with a ninth grade education and her 4-year-old, mildly developmentally delayed son. The child attended Head Start for two weeks but was too disruptive to remain in the classroom. Following treatment, he was successfully reintroduced to the Head Start classroom. This family was part of a recent outcome study conducted with 20 families referred for treatment of disruptive behavior disorders (Eisenstadt et al., 1990). The average child in the sample was a white male, age 4 1/2. A significant number of families were headed by single mothers who either supported their families through work outside the home or relied on public funds. Treated children moved from outside of normal limits before therapy to within normal limits after therapy on compliance and parent report of acting-out problems on the Eyberg Child Behavior Inventory and Achenbach Child Behavior Checklist. Children also improved to within normal limits on a parent report measure of activity level, the Werry-Weiss-Peters. Although not outside of normal limits before treatment, statistically significant improvements were found on internalizing problems on the Child Behavior Checklist and child report of self-esteem on the Harter Scale of Perceived Competence and Social Acceptance for Young Children (Eisenstadt et al., 1990). The level of parenting stress reported on the Parenting Stress Index was at 99+% before treatment and was reduced to 80% after therapy. The high pretreatment level of parenting stress in combination with frequent use of corporal punishment and highly disruptive child behavior suggests that this was a sample that was at risk for abusive parenting. After therapy was ended, mothers significantly decreased their use of swats, restraints, and criticism while significantly increasing their frequency of praising (Eisenstadt et al., 1990).

Another study evaluated how well treatment improvements generalized from the home and clinic settings to the classroom setting (McNeil, Eyberg, Eisenstadt, Newcomb, & Funderbunk, 1991). Ten children referred for disruptive behavior at home and at school were compared with control children from their classrooms. Several of these were Head Start students, and the remainder were in preschool or kindergarten classrooms. Two control children were selected from each classroom; one whose behavior was average for the classroom and one whose behavior was difficult to manage and most closely resembled the problems displayed by the referred child. All children were evaluated through multiple teacher report and classroom observational measures. The referred children all demonstrated clinically significant behavioral improvements in the home and clinic after 14 therapy sessions. No intervention was conducted in the classroom. When they were evaluated in the classroom after treatment, these children demonstrated clinically significant improvements on teacher report and observational measures of noncompliance and disruptive behavior. Their improvements were significantly greater than those demonstrated by the control group of untreated behavior problem children. Also, the magnitude of improvement in conduct problem behavior was large enough that the treated children did not significantly differ from the normal control group after therapy. However, generalization was not found in the domains of overactivity/distractibility and social skills (McNeil et al., 1991).

Results of the two studies demonstrate that PCIT is an effective treatment for acting-out preschoolers from stressed, socioeconomically disadvantaged families. Although the single-family approach to treatment may be the most effective for severely behaviorally and emotionally disturbed preschoolers, it may not be the most time- and cost-effective method for helping the average at-risk Head Start student. For at-risk families, PCIT may be a useful approach for preventing the development of more severe problems and may facilitate better adjustment to kindergarten and first grade classrooms. In terms of prevention, the skills taught in PCIT may be presented more efficiently through two- or three-day parenting workshops conducted with multiple families. Ideally, these workshops would be conducted as early in the beginning of the school year as possible and would be followed by periodic booster sessions to promote retention of skills. To make services most accessible, workshops should be conducted at Head Start facilities rather than in the mental health practitioner's office. Although PCIT conducted in the clinic has been shown to improve some aspects of classroom behavior, school improvements may also be promoted through use of PCIT skills by Head Start teachers. Teachers may be taught to employ PCIT skills in the classroom through group workshops as well as through direct classroom coaching using new portable bug-in-ear technology.

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Discussion *Leon A. Rosenberg*

I will make a few comments about each paper and will follow with an overall impression.

Timothy Iverson's paper: The numbers of subjects in each of his groups is rather small for some of the generalizations being made. The statements of differences between groups on such measures as percentage of positive responses by peers to social initiatives and parents positive responses to comments and questions of the child really demand statistical analysis, which is not presented in the paper. The parent-child interaction measures were frequency counts of specific behaviors. However, the time frame for the recording of this data was not always consistent. If the mother or the child "gave up" on the task demanded of them, the session was stopped. Hence, the observations were of different time lengths for different parent-child pairs. This could seriously impact on frequency-count data. However, the paper presents some very important findings. Certainly, we all know that maltreated children demonstrate social deficits in peer relationships. This study indicates that neglected children demonstrate even more severe social impairment than that demonstrated by physically abused children. This observation strongly suggests that neglect is an extremely powerful negative force in the development of children. However, in most parts of the country, we move aggressively in response to physical abuse, but our response to cases of neglect is much weaker.

The parent-child interaction data are very interesting. For many years we have known that impoverished families had a tendency to not verbally interact with their children. They tended to give orders or to verbally chastise but not to encourage the child to talk and share ideas. This has been described as an interactive style associated with socio-economic impoverishment. This study now gives us a chance to look at maltreatment and non-maltreatment parent-child dyads within the socio-economically deprived group. We now see that improvised parents differ in their interactive styles. Non-maltreatment parents talk to their children and consistently respond to questions raised by the children. Maltreating parents, on the other hand, tend not to respond to their children's verbal requests.

Of even greater interest was the finding that the degree of parent-child verbal interaction was positively related to the amount of time the children spent interacting with others on the playground, and negatively related to the frequency of unsuccessful initiation of interaction with peers. As a result, we see that parent lack of responsiveness to the child, which in the past had generally been related to lower socioeconomic status, is related more to maltreatment than to the socioeconomic level of the parents. We also clearly see that the quality of parent-child interaction is directly related the child's social success while we are still dealing with socio-economically deprived families. The paper strongly indicates that the culturally impoverished and maltreating parents were able to greatly improve the quality of their interaction with their children and, in response, the children greatly improved their skills in peer group social interaction. We now have another example of success in attempting to change an important aspect of parenting in a group that has a general reputation of being highly resistant to change; namely, abusing parents. In addition, we also see significant improvement in the behavior of socio-economically deprived and abused children. The behaviors that changed are extremely important for the normal development of children. This is not just a situation of producing youngsters who are happier on the playground. These playground social skills may look like simple games to adults, but we all understand that they represent a crucial component of normal child development. These youngsters are learning to effectively utilize language skills in initiating and maintaining social interactions. They are learning to recognize language cues, facial expression cues, and bodily movement cues that are essential for successful communication with others. It all becomes much more complex as the child becomes older, but the initial and crucial learning starts here.

The author accurately indicates a weakness of this study as being that of not being able to determine which component of a multifaceted program had the greatest impact on outcome. His desire to study the separate components of the program to determine their relative power is certainly understandable. However, I have the strong suspicion that we are dealing with a gestalt; a situation where the whole is the greater than the sum of its parts.

My own experience in evaluating Head Start Programs, day care efforts, parent-child centers, and other forms of social-educational intervention, has left me with the strong feeling that intervention with the socio-economically deprived population in general, and the more specific subgroup of maltreated children and their parents, will always require a combination of direct service to the child, direct service to the parent, direct impact on parent-child interaction, but in a framework of periods of relief for the parents from the day-to-day strain of caring for their children.

A question that I find of great interest is whether or not these findings would be the same if the maltreating parents and their children were middle class. What would happen if we had parents who were not culturally deprived, whose economic power was significantly greater, and who had more reasonable educational background. These types of parents also neglect and abuse their children. Would we find the same variables to be significant?

I suspect that if one redid this study with a much larger sample, and with that sample cutting across socio-economic strata, we would see evidence of pathology within the parents contributing to their inability to relate normally with their children. The very small sample size in the present study makes it impossible to examine the issue of psychopathology within the adult. By this I am not referring to psychosis. We all know that major mental illness is not an issue in the area of abuse and neglect. However, there are more subtle problems in the psychological functioning of adults that may contribute to conditions of neglect and abuse. Regardless of the few methodological questions I initially raised, this report clearly indicates that a great deal can be done to assist maltreated children and their parents.

Toni Eisenstadt's paper: The direct training of parents in child-management techniques is certainly nothing new. The behavioral-management techniques that are the basis of this program have been well studied over the years and their validity is firmly established. The presentation techniques of direct instruction, therapist modeling of parenting skills, and the use of role playing are also commonly used techniques that many of us are quite familiar with. What is a both unique and very powerful intervention is the use of direct coaching through their "bug-in-ear" microphone-hearing aid device.

Many of us have had the experience of observing parent-child interaction through a one-way mirror and then meeting with parents to discuss areas of possible improvement. Even if the meeting comes immediately after the observation session there is still a period of time that elapses between the exact moment of the parent-child interaction and the parent hearing the therapist's suggestion. The ability to make a suggestion to the parent at practically the same moment that the behavior is observed not only gives the parent immediate feedback, but also permits the parent to immediately try a different approach and immediately observe the effectiveness of that change in behavior. The study of the learning process, which has been going on for so long, has clearly indicated the power of in-real-time instruction. No matter what the task may be, from flying an airplane to disciplining a child, immediate feedback followed by an immediate next trial produces successful learning.

The research done by this group clearly demonstrates that these time-proven techniques combined with a very innovative presentation produce changes in behavior of the child at home, a reduction of the parents' experience of stress in child management, and generalizes to some aspects of the child's behavior in the school setting. The teacher is an extension of the mother in terms of both authority and potential for nurturance. This program certainly emphasizes modification of the authority-based interactions between the parent and the child combined with an increase in the use of praise, which can easily be seen as a crucial aspect of emotional nurturing. Therefore, generalization from parent to teacher is not at all surprising, but experience has taught us that it is not that easy to obtain. The fact that such generalization occurred clearly indicates that the basic changes effected by the program were very powerful and had impacted significantly on the child's expectations regarding authority relationships.

Their report that activity level and social skills in the classroom were not affected by the program does not in anyway diminish the importance of the program. Activity level and social skills are complex phenomenon that were clearly not addressed by the program in the first place. This is a report of an exciting and innovative program clearly impacting on the quality of parent-child interaction.

Louise Guerney's paper: The paper by Guerney gives us a fascinating look at yet another way parents can learn techniques that allow them to become the provider of major assistance to their children. Guerney is talking about youngsters who were demonstrating difficult behavior that usually called for direct intervention by trained professionals. In her program, those professionals do intervene in many ways that are familiar to all of us, but what is unique in this report is that their intervention results in the parent being the therapist for the child. Specifically, the parents learn how to use play therapy to assist their children with underlying emotional difficulties.

One of the first things that stood out for me in reading the paper and then listening to the presentation was the importance of the type of learning experiences the mothers were going through. In order to be their children's play therapists these parents were learning such complex issues as total acceptance of the child's expressions of anger or other feelings. This resulted in parents being able to listen to their child speak of very hostile thoughts and play out those hostile thoughts with aggressive doll play. The parents learned to not be afraid of what these statements of anger might lead to, to not interrupt the child, and, hence, to not teach them that these feelings were unacceptable. This meant that these mothers were able to listen to and totally accept statements from their children which in many homes would result in punishment.

Guernsey also reports that these parents learned to set limits, with behavioral outcomes being specific and consistent. We all recognize this as a major issue underlying most child-management problems. Mastering these two concepts would be a major step forward for any family struggling to manage a disruptive child. She reports highly significant changes in child behavior and in parent and child attitudes that were evident several years later and which generalized to different settings. It is quite apparent that these parents learned to deal very differently with their children, and that the children learned to relate very differently with others -- clearly, a powerful combination.

OVERVIEW: Two of these reports emphasized the fact that the training occurred with the parents and no intervention was carried out in the classroom. The children then went on to show positive changes in the school setting. It is my feeling that most teachers most of the time behave in a way that would reinforce what the children had learned in these special programs. But positive findings should not blind us to the fact that this is not always the case.

It is quite possible to produce disruptive behavior in the classroom even with youngsters who come from homes where the parent-child interaction is excellent and all of the behavioral principles indicated in these presentations are followed. The impact of the teacher can be formidable. For positive behavior change to be maintained it is essential that teachers uniformly practice the behavioral principles involved. As I have already said, I believe that most of them do, however, there are those who do not and whose young students get into a good deal of difficulty. Unfortunately, when that happens we routinely point to the child and his or her parents rather than take a close look at the behavior of the teacher.

Of greater interest to me is the suggestion made by the first two authors that their programs could play an important role in Head Start. I agree completely, but there are a few suggestions I would like to make. Over the years I have had a good deal of experience in working with parents on management issues as part of the parent-involvement portion of Head Start programs, or what in other settings have been called parent-child centers. As we worked together to develop management strategies for specific problems the parents were having, it was fascinating to see how specific environmental characteristics had to be overcome before a management principle could be put into operation. Techniques of separating angry children, using time out, controlling TV watching, etc., all involved such issues as the amount of space available to the parent, the number of people in the apartment, and a variety of special demands that the parents had to meet.

The parents I worked with lived in public assistance housing. I certainly expected that crowded conditions would be a common problem to be dealt with as we discussed the management of disruptive behavior in children. However, I was surprised to learn of many other types of interference unique to public assistance housing. For example, these women were constantly alert to signals that indicated imminent danger. Noises they would hear or people they would see in the outer courtyard would indicate to them that rival drug gangs were about to fight. Certain noises from the corridor outside their doors indicated the presence of danger and controlled their immediate decision as to where their children could play. These observations not only caused them to make decisions regarding themselves and their children, but also required them to contact specific neighbors who had joined together in a network of mutual protection. This was only a small part of the range of interpersonal responsibilities that these women had to deal with that were unique to the dangers of high-rise public assistance housing. As a result, their daily management of children was extremely more complex than anyone outside of their system could imagine. Since my approach had always been that I needed them to teach me what reality was so we jointly could design the application of a management principle, I quickly learned from them how complex their lives were. This did not change the validity of the management techniques themselves but only demanded ingenuity in designing their application.

When we talk about applying a program to National Head Start we have to keep in mind the great variety of social, cultural, and physical environments that will be involved. The successful application of behavioral management techniques will require truly effective parent involvement, not a parent involvement that simply means the parents receive help, but a parent involvement that truly involves the parents in the design and delivery of the help they are to receive.

Of course, there are many differences between the three studies that have been presented. However, one of the most striking similarities between them turns out to be something none of the authors spent much time addressing. In each of these programs parents were basically being told that they had to make changes in order to raise their children well. This can be a very threatening message. And to make it all more difficult, the message came from people who were clearly very different from them. Not from their neighbors or friends, which can be difficult enough, but from educated professionals coming from a very different world. Somehow, all three programs managed to overcome this difficulty and they were all successful in producing significant changes in children's behavior, with the parents becoming significant agents in producing those changes. We have to applaud their skill in overcoming a socio-economic-cultural-difference barrier that can, and has, destroyed programs.

Their success in helping the parent become the mental health change agent can mean a great deal to Head Start planning. We are not going to be able to help many children if we stay with the traditional mental health model where youngsters are referred to mental health specialists when problems occur. We are not going to get very far if parent involvement simply means groups of parents hearing talks about good ways to rear their children. These papers demonstrate that there are techniques available that can significantly change parent-child interaction to the marvelous benefit of both the child and the parent. Obviously, these procedures cannot be directly transferred to a Head Start setting. But with ingenuity and a little risk-taking, aspects of these three programs can be adapted to assist Head Start Centers.

The initial adjustment finding lends strong support for the need for a National Family and Medical Leave Act. Since parents are often working, release time from the job without fear of losing that job could help to facilitate the adjustment to having a disabled child, regardless of how the child enters the family.

IMPLICATIONS: Family support agencies working with both adoptive and birth parents of children with disabilities should carefully monitor the adjustment process, because initial adjustment seems to be predictive of long-term adjustment. This suggests that initial

adjustment may be the best point for intervention efforts. Passage of a National Family and Medical Leave Act could help to facilitate family adjustment to having a disabled child.

AUDIENCE DISCUSSION

Aggressive content of preschool children's fantasies and how parents can be taught to understand the importance of this expression were explored. Panelists argued that in their experience parents were able to learn to tolerate aggression in therapeutic play as they began to understand that it did not generalize outside the playroom. An audience member felt that parents were much more comfortable reinforcing socially appropriate behaviors or cognitively-related accomplishments. For example, "You must be really proud, you made a Y," is easier to learn than responding positively to a child who says, "I am crushing it, pulling out his eyes," while working with a clay figure. Panelists responded that parents who were strongly supported were able to express positive feelings when they saw children express aggression through fantasy play because they had been taught the importance of children expressing their feelings.

A question was raised about how this therapeutic work would be used by programs where staff is seeing aggressive behavior in the classroom. Involving parents is key. One must not think in terms of broad programming, but rather of individual parent-child interactions, to begin to develop responsiveness to each other. This therapeutic approach has been successful with homeless mothers and children living in shelters, according to panelists.

Panel 101 TEACHING CULTURALLY DIVERSE PRESCHOOLERS

Chair: **Mary Lewis;** *Discussant:* **Lourdes Diaz Soto**

An Integrative Review of Literature on Cultural Diversity: Synthesizing Research on Cognitive Style and Learning Modalities *Tonya Huber, Cornel Pewewardy*

> From the moment I entered the classroom as an observer, Tan had intrigued me. He was one of the new arrivals to this country and from Saigon, another student in the ESL program. My ethnographer's mind was clicking as I determined how I could unobtrusively observe Tan at the computer with two other ESL students. But my closeness was immediately registered, even though I had hunkered at the side of the computer table. I was aware that my presence seemed to vex Tan -- funny that I was collecting data on culturally responsible pedagogy, yet I misread the "culture" of this bright and lively boy. No more than a minute elapsed before he bolted up from his chair at the computer table, circled around to the opposite corner of the classroom and retrieved a chair that he pushed toward me. "You sit," he maturely commanded. It wasn't until this occurrence repeated itself later in the week that I realized that in his worldview it was a cultural violation for a teacher, a female of authority, to be down on the floor with the students. Tan showed respect by providing a chair for me to sit on. During an outside assembly a week later, Tan returned to the building to retrieve a chair for another teacher so that she could sit. She was as surprised as I had been by his gesture. (Huber, 1991.)

The misinterpretation or misunderstanding of similar culturally motivated gestures has the potential to cause cognitive dissonance, stress, and interference with learning for a student whose cultural experiences, worldview, and cognitive style are different from the school culture or scholastic ethnicity (Bennett, 1990) of the educational experience. As defined by Pai (1984): "Cultures are various societies' successful experiments in living . . . . Patterns of beliefs found in various societies have no intrinsic meanings apart from their cultural context, for such patterns are reflections of unique world views and value orientations belonging to individual societies".

Public education in the United States, historically, has served the dual function of transmitting knowledge and culture deemed necessary for adult participation in American society (Crull, 1988). An important role of schooling has been the acculturation of minority groups--immigrant and involuntary especially (Ogbu, 1987). "Enculturation" is the process of learning one's own culture, influenced primarily by home and family; "acculturation" is the process of learning aspects of a culture other than one's own, influenced primarily by schools. When school culture conflicts with home culture, the learner suffers. It becomes critical to educational effectiveness for those involved in the educational process to recognize the scholastic ethnicity of their program and institution and how that culture may conflict with the traditional or home culture of learners participating in that acculturative process (Foerster & Little Soldier, 1981).

Focusing on First Americans, Lin (1985) contends that the poverty of educational achievement suffered within Native American communities might very well be the root of the overall social problems faced by Native Americans in a modern technological society. The same conclusion applies when interpreting the history of education for other minority groups. Quality education is a necessary condition for assuming a productive meaningful role in a pluralistic society. Research supports that quality education is attainable for all students. "We know from existing research that it is possible to create classroom activities that retain the school's

goal of specific forms of educational achievement and that simultaneously take advantage of various unique configurations of children's background experience" (Laboratory of Comparative Human Cognition, 1986).

These "unique configurations of children's background experience" are the specific focus of this review of literature. The intent has been to systematically explore the database for empirical research, practice and pedagogy pieces, conference presentations, and reports addressing cultural diversity and school experiences. Grant and Secada (1989) reported on the "paucity of research" regarding "preparing teachers for diversity" in the face of documented educational barriers and challenges facing different student populations (Coleman Report, 1966; Kennedy Report, 1969; Meriam Report, 1971). Culturally responsive pedagogy is the foundation from which educators can build a knowledge base for teaching culturally diverse learners. It is the belief of this team of educators that the sources for a knowledge base do exist. For varied reasons, the research is not always in the most widely circulated mainstream educational journals. The information derives from a breadth of data sources.

METHOD: A review of literature was conducted by way of a computer search of the ERIC and PSYCLIT databases for the years 1980-1990. Key descriptors included "cognitive style," "learning strategies," "learning modalities," "worldview," and specific descriptors categorized by "ethnic groups," "minorities," and "culture." The focus of this paper is to explore concepts related to family structure and social interaction developed from a constant comparative analysis (Lincoln & Guba, 1985) of the review of literature data. A taxonomy was created to provide topical groupings identifying cultural aspects of which a teacher, caregiver, or educator would need to be culturally aware to maximize interaction with children, students, and their families. Perhaps the most significant implication of this review of research is the support for a restructuring of school culture to better meet the needs of all students. The traditional paradigm of American education, imported from Europe 300 years ago, has recognized limited effectiveness in educating culturally different or minority students. The traditional model has worked only slightly better for Anglo students of European descent than it has worked for culturally different or minority students. Social class and ethnic group affiliation, by birth or by choice, are structures as predominant as "race" -- a ubiquitous term, at best -- in human growth and development. A person's behavioral style is usually a cultural framework for how that person views the world; successful people integrate different cultural styles.

THE RESEARCH ON FAMILY STRUCTURE: In Western society, the family consists primarily of three generations -- the grandparents, parents, and children (Johnson, 1983; Red Horse, Lewis, Feit, & Decker, 1978). The responsibility of childrearing is maintained basically within this nuclear family unit and is reflective of the principle of private property (Goodluck & Short, 1980). Children are considered as property in the sense that it is the nuclear family's responsibility to discipline, nurture, and support their children from birth to the legal age of consent (usually 18 years of age). This Western value is in direct conflict with traditional non-Western family structures.

Regarding research on the First Americans, the Native American family concept is the extended family, encompassing the aunts, uncles, cousins, maternal/paternal grandparents, and, perhaps, other tribal members. Within this family network lie cultural norms, roles, and responsibilities conducive to childrearing practices. For instance, in the Kiowa tribe, a child may have several "mothers" who facilitate behavior through tribally specific story-telling lessons of the coyote -- "Saynday" tales. Coyote tales, "Ma'ii" tales, are also told by the Navajo, as well as by many other Native American peoples. (For discussion of Native American worldview, see Pewewardy & Huber, in press.) Native American tribes vary from strong matriarchies and patriarchies to bilineal groups, though most are based on extended families. While the traditions and customs for childrearing vary significantly between tribes, the theme of the extended family is prevalent among the majority of Native American peoples. The child is not viewed as personal property, but as belonging to the community as a whole (Eastman & McDougall, 1991, p. 68). The responsibility for the care of a child does not cease at a particular age. An Indian child, for instance, is prepared very early in life to make decisions concerning his or her well-being. Native children are thus accorded a greater degree of autonomy and independence than Western children (Johnston, 1983). In the extended family, responsibility for parenting and caregiving are not the sole responsibility of direct-heritage family members; in fact, parenting may be provided by tribal elders, particularly by grandparents. For example, in Hopi culture, a father does not punish his own child. The cultural belief is that this would destroy the father's unique teaching relationship with his child; an uncle or designated tribal member assumes the responsibility for reprimand (Siskind, 1981). In another example, Tafoya (1986) explains:

> Among many tribes of the Southwest, newly married couples will move into the woman's family home or area, and control of the concrete family resources will be the responsibility of the woman, but not necessarily the wife, . . . perhaps, the mother-in-law, or the ruling elder . . . young people who are indeed parents, [but] have little if any influence and power within the extended family home.

Discipline is rarely a parental activity for traditional Native American families. Guidance occurs in the form of "teaching legends" to monitor the behavior of children and adults alike. Right or wrong classifications remove context, whereas Native American cultures are high-context cultures viewing actions as appropriate or inappropriate within specific contexts.

In her research regarding relationship-identity negotiation and relational dissolution, Gonzalez (1991) detailed characteristics of the Mexican extended family, positing that the extending of family boundaries to include non-blood-related individuals in the family might well demonstrate some of the indigenous effects of Native American cultures on Mexican culture.

Specific research findings regarding family structure document that the nuclear unit commonly depicted in educational models does not accurately reflect family structure for any of the major cultural minority groups in our educational system. Nor does the research support that the characteristics of the nuclear family -- the perceptual norm for the concept of family in school culture -- significantly correlate with school success, esteem-building, or achievement. In fact, the support network that exists in the extended families of the Native American peoples, the prototype of filial piety that characterizes both Hispanic and Asian traditional family structures, and the multigenerational, interdependent kinship system of African-Americans may in fact provide more family solidarity and sense of belonging than the nuclear unit of mother-father-children. This is particularly true in a society that is reporting increasing single-parent family households. The National Center for Children in Poverty (1990) reported that in 1987 24.7% of all children under 6 were living in single-parent families.

The term "single-parent family" itself is an externally imposed conceptualization that does not translate cross-culturally to extended family cultures. Many relatives beyond the nuclear family, including aunts, uncles, grandparents, distant cousins, and in-laws are all included. In certain instances, close friends are often "adopted" into the extended family and identified with familial labels.

IMPLICATIONS: Distinguishing between enculturation and acculturation characteristics becomes critical to determining appropriate, culturally responsible behaviors and interactions with children, students, and families. Specific guidelines for teachers, educators, and caregivers should take the following into account: 1) Flexible and extended family and social networks need to be recognized as legitimate structures, not disorganized or dysfunctional ones; 2) Teachers should not be alarmed or interpret it as a sign of family distress if an aunt, uncle, grandparent, or godparent serves in a role the school culture labels as guardian; 3) Within-group differences are often greater than between-group differences demanding the need to understand different value systems for different families; 4) Since Asian students may look upon teachers as an extension of the family, it is not unusual for students to seek out a teacher and request help with personal guidance issues; 5) Students from extended family homes may have difficulty identifying with curriculum materials that identify family structures as father-mother-children; 6) When dealing with children and students, the focus must be aimed at aiding the student, not judging the parents or family; 7) Since it is not customary for Vietnamese children to call an adult by name without a title, the use of "aunt" and "uncle" may suggest blood relation to an educator not familiar with this cultural characteristic; and 8) Because of the larger size of the Mexican-American family unit, strength of familial interdependence, and patterning of relationships are reported as reasons for their relatively greater preference for cooperative and prosocial outcomes in interdependent situations.

From a historical viewpoint, issues of encroachment, displacement, and denial of basic fundamental rights are based on ignorance, prejudice, and racism. From a multicultural perspective, the above are translated into overt and covert negative delivery of needed educational and social services. There basically is no difference between how white settlers encroached and then displaced and how early childhood educators, protective workers, and policy makers are attempting to encroach and then displace untraditional American families (Pewewardy, 1989). Therefore, the utilization of focus groups, i.e., political action communities, special interest groups, etc., might serve as a vehicle to foster the direction of early childhood policy in ways that would be culturally responsive toward all children of diverse backgrounds.

Understanding the diverse family structures of school-age children is imperative if the programs proposed and implemented by the government are to maximize learning for all students. Increased focus on Head Start and the creation of Even Start, a program aimed at the amelioration of intergenerational illiteracy through comprehensive family programs, presents a need for a knowledge base to aid educators and policy makers in understanding and working with diverse families.

CONCLUSIONS: In order to be effective, early childhood education cannot be isolated from the family structure. Parental involvement is one of the key concepts in culturally responsible education and governmental legislative policy. It is imperative that families be encouraged to become involved in the overall educational process. Based on this review of literature, the authors conclude that culturally specific research and practice exist - though not always in mainstream publications. Specific findings and implications identified on the taxomony support and foster culturally responsible pedagogy in various multicultural, pluralistic environments. Characteristics of culturally responsible pedagogy should include attributes and actions that transcend differences to nurture growth and development: esteeming labels, empathizing labels, attraction, affection, sympathy, concern, nurture, empower, befriend, and courage. If culturally responsible pedagogy is to be achieved, more effort should go into developing strategies for social and institutional change, as well as the requisite attitude change. Cultural awareness and responsiveness must pervade all educational experiences. Family, school, and community must work together to achieve quality education for all learners. Children cannot be "trained" to be culturally oriented, nor should they be acculturated without regard for their native culture. The unique configurations of children's background experiences and the diverse worldviews through which learners perceive life need to be identified by educators who would be culturally responsible to the learners they nurture and teach.

EDITOR'S NOTE: Although the authors submitted an integrated work including a review of the literature and a taxonomy of cultural characteristics of learners, space limitations precluded including the entire text and the extensive list of references.

Role of Intersubjectivity in Teaching Culturally Diverse Preschoolers *Victoria R. Fu, Andrew Stremmel, T.J. Stone*

Over the past 20 years, our thinking about the nature of learning and development has been heavily influenced by the ideas of Jean Piaget. Piaget's theory, though recognizing the importance of the social environment, hypothesized that the emergence of cognitive development and intellectual activity are largely intrapersonal. In recent years there has been a growing understanding and appreciation of the social context that surrounds and influences development in general and learning in particular. This appreciation has been greatly influenced by the translation and interpretation of the theoretical work of Vygotsky (e.g., Rogoff & Wertsch, 1984; Vygotsky, 1978; Wertsch, 1985a, 1985b). Extending Piaget's view that children are active participants in their development, the Vygotskian stance emphasizes that social interaction involving more capable others provides the context for a shared construction of knowledge and understanding. Drawing upon insights from Piagetian and Vygotskian perspectives, we present a teaching approach that we believe is both developmentally and culturally appropriate. Employing a sociocultural framework, we contend that learning is facilitated in both the spontaneous and contrived interactions that occur between the developing child and more mature members of his or her community (Wood, 1988).

PERSPECTIVES ON DEVELOPMENT -- PIAGET AND VYGOTSKY: Perhaps Piaget's greatest contribution to the understanding of children's cognitive development, at least in educational terms, is the view of the child as an active learner who is capable of constructing his or her own understanding. Piagetian theory, though largely an individualist orientation, suggests that social interactions between children may foster development by exposing them to other perspectives and conflicting ideas that may encourage the child to reformulate his or her ideas or ways of thinking (Piaget, 1932). However, the cognitive benefits of social interaction become evident only with the decline of egocentrism, when children are more capable of coordinating two differing perspectives (Tudge & Rogoff, 1989). A major implication of this perspective is that any attempts to teach (e.g., question, show, explain) before a child is mentally "ready" will do little to foster development. In fact, premature teaching may interfere with the child's own attempts at exploration and discovery, or may result in the acquisition of empty procedural knowledge (Wood, 1988).

Vygotsky's sociocultural theory suggests that social interaction influences development from the beginning of life. Like Piaget, Vygotsky held the view that children are actively involved in constructing an understanding of the world. Departing from Piaget, he posited that social interaction with more skilled partners (adults or peers) is the means by which children become enculturated in the use of the intellectual tools of their society (e.g., language and mathematical systems). Social interaction involving more capable others provides the context for a shared construction of knowledge and understanding. Vygotsky (1978) referred to the range between what children can do on their own and what they can achieve with assistance as the zone of proximal development (ZPD). Working within this "zone," children gain skills that allow them to assume increasing responsibility for their own learning.

The theories of Piaget and Vygotsky appear to converge in the assumption that development is more likely in the context of social interaction when the participants (either peer-partners or child-adult partners) work toward achieving mutual understanding of a problem and collaborate to arrive at a solution (Rogoff, 1990; Tudge & Rogoff, 1989). For Piaget, collaborative problem solving between peers of equal cognitive status functions to advance the individual's development. By contrast, Vygotsky views collaborative activity as shared thinking in which partners of differing expertise in a specific domain of knowledge engage in and make use of joint activity to expand understanding and skill (Rogoff, 1990).

Intersubjectivity is the linguistic concept that denotes the sharing of purpose or focus in the coordination of perspectives (Rommetveit, 1985; Trevarthen, 1980). In collaborative activity it is crucial for partners to determine a common ground for communication and to understand the interests, skills, and goals that can be expected of the other.

Guided participation (alternatively conceptualized or described as contingent teaching, scaffolding, reciprocal teaching, proleptic instruction, assisted performance, and responsive teaching) refers to the "teaching-learning context," in which pupil and teacher collaborate in negotiating and constructing a desired learning activity through responsive instructional interactions (e.g., conversations or dialogue) (Rogoff, 1986, 1990; Stone, 1985; Tharp & Gallimore, 1988; Wood, Bruner, & Ross, 1976, among others). According to Rogoff (1990), guided participation involves: 1) building bridges between what children know and new information to be learned; 2) structuring and supporting children's efforts; and, 3) transferring to children responsibility for managing problem solving. The bridging between the "known" and the "new" in communicative interaction presumes intersubjectivity. In dealing with culturally diverse populations, for example, initial differences in perspective must be modified in order to reach a common ground for communication (and thus learning). In guided participation, both child and adult work together in structuring the learning situation. The means of guided participation are observable in all natural teaching contexts (e.g., in parent-child interaction), and in most joint activity settings where partners have different levels of expertise. Although there is evidence to support the ubiquity of social guidance and participation in a variety of contexts and cultures (Rogoff, 1986, 1990; Tharp, 1989; Tharp & Gallimore, 1988; Wertsch, 1985b), there are cultural differences in the knowledge, skills, and values to be learned, the interpersonal arrangements necessary for learning, and the contexts available to children for the practice of skills and incorporation of values.

RESPONSIVE TEACHING IN EARLY CHILDHOOD EDUCATION: Guided participation in the zone of proximal development, or responsive teaching, as we prefer, is rarely promoted as a legitimate form of instruction in early childhood classrooms in this country.

This may be because early childhood settings have not been viewed as a context for teaching. Most early childhood theorists, incorporating the ideas of Piaget and the "progressive educators" (e.g., Froebel, Dewey, Pestalozzi, and Rousseau), emphasize that child-directed activity, particularly exploration and discovery through play, is essential to child-centered approaches to early childhood education. In keeping with this thinking, the early childhood teacher's role is viewed as a co-explorer or facilitator. We wholeheartedly agree that play is important to child development and that children should be given opportunities to make self-discoveries without interference from an adult. Nevertheless, the almost exclusive focus on autonomous learning and play endorsed by early education experts (e.g., see Bredekamp, 1987) ignores the large body of research that demonstrates the potential of other contexts, particularly those in which children and adults collaborate in meaningful activities, to influence children's development (Henry, 1990; Tizard & Hughes, 1984).

Mutually-directed activities provide important contexts for collaborative learning that should receive balanced emphasis in any discussion of developmentally appropriate instruction, especially involving children from many diverse backgrounds. With this in mind, it would seem that the best way to ensure sensitivity to the diverse learning patterns of children is through responsive assisted teaching in a variety of contexts that is consistent with children's developmental and sociocultural needs (Linney & Seidman, 1989, Tharp, 1989).

Responsive teaching differs from conventionally-defined means of instruction, such as explanation or demonstration, because it relies on the construction of shared meanings (Stone, 1985). Traditional or teacher-directed forms of instruction involve making presuppositions about the task explicitly known prior to task-engagement. This minimizes the child's active role in constructing understanding of the task, while maximizing the teacher's role. It also precludes the opportunity for the learner to contribute to a mutually determined, goal-directed context for completing a task. Developmentally appropriate, responsive teaching involves a delicate balance of teaching strategies in both formal and informal learning settings. It requires the teacher to possess some prior knowledge of each child's current level of functioning, and a sense of when to intervene and when to hold back, allowing children to make self-discoveries when they are able, but also providing the necessary cues when children are moving off target. Children meanwhile must be intrinsically motivated and interested in a meaningful activity that will allow for varying degrees of challenge.

In early childhood education, activities often do not have a clear, obvious structure, and usually do not require a "correct" way of approaching and accomplishing them. Therefore, the teacher must effectively identify the child's own goal in relation to the activity to be able to achieve a measure of intersubjectivity that will enable the child to reach this intended goal while engaged in task-appropriate behaviors. The teacher may simply provide reminders or suggestions, give hints or ask questions, or it may be necessary at times to show or tell the child exactly what to do. An example is helpful.

Cooking or preparing food is largely an adult activity observable in many cultures and in home settings. Children take part the preparation of food through the process of guided participation, in which opportunities to observe through modeling are common in everyday experience (Rogoff, 1986, 1990). This kind of collaborative activity typically requires the adult to take greater responsibility because of its importance to survival. However, the child actively participates at points where his or her skill level is congruent with the task demands. In preschool settings, children may take part in stirring, cutting, and serving, while the teacher demonstrates certain procedures or describes what is happening as ingredients are mixed, measured, and cooked. Such opportunities for mutual involvement in culturally meaningful activity should be valued as an important teaching-learning context.

Responsive teaching, which draws upon a variety of teaching methods in collaborative activity, is offered as an effective means of recognizing and accommodating the perspectives, values, and experiences of diverse cultures. In endorsing this child-sensitive approach, however, we are far from suggesting that responsive instruction can be a panacea for eliminating the inequities in school achievement among different cultures.

RECOMMENDATIONS AND CONCLUSIONS: Increasingly, we will be dealing with a diverse population of children in early childhood settings. These environments, if they are to provide teaching-learning contexts that are compatible with diverse cultures, must incorporate developmentally appropriate instruction that is contextualized, it must relate to personally meaningful experience, utilize culturally important materials and contexts (e.g., mutually directed activity), and involve parents (Tharp, 1989). Moreover, while it is important to be sensitive to the learning patterns of various cultures, the child care center or preschool classroom must be seen as having a culture of its own, with demands that are unique to that "culture" (Wood, 1988). Therefore, Head Start programs must promote the twofold aim of: assisting parents to teach their children to respond appropriately and successfully to "school-specific" activities; and incorporating to a greater degree the values, beliefs, and learning patterns of the families they serve.

Parents might find early childhood education more accessible and easier to support if they saw adults and children engaged in mutually directed everyday family-like activities (e.g., cooking, woodworking, caring for plants, washing clothes, and helping to maintain the classroom) in addition to child-directed play (Henry, 1990). The rationale for this assumption centers on the opportunity for more open and meaningful information exchange between parents and teachers about ways that teachers can support parent-child home activities. Such exchange would empower all participants in the development of children. The inclusion of more mutually-directed or collaborative activity in early childhood classrooms also would provide a context where both parents and teachers are viewed as acceptable partners in the learning process. Opportunities for parents and children from various ethnic and racial groups to

participate in joint activity would help to provide children with a strong sense of cultural identity, frequent sharing of authentic cultural activity, and a merging of cultural and "school-specific" skills (Swadener, 1988).

How can we best prepare prospective early childhood teachers to be responsive to the needs of diverse children? Teachers must not only be equipped with the pedagogical skills considered important to teaching young children (and there is no consensus on these), they must be trained to utilize the skills essential to teaching within the zone of proximal development. Among other things, this includes the ability to assess the needs, abilities, and interests of a diverse group of children, and to know how to meet these once discovered, drawing from a repertoire of teaching strategies. Tharp and Gallimore (1988) have suggested that to develop such skills, teachers must be provided with opportunities to observe competent practitioners of responsive teaching, practice newly acquired skills, receive audio- and videotaped feedback about their instruction, and have their teaching practice assisted by a skilled mentor. Critical to responsive teaching practice is the ability of teachers to be reflective during their interactions with children. Teachers who teach responsively need to reflect on what they are doing in the midst of their activity, evaluate how well it is working, and, as a result, make changes in their teaching practices. Additionally, thoughtful and careful examination of teachers' own prior experiences (i.e., as a teacher and learner) and intuitive understanding are necessary for achieving intersubjectivity in responsive teaching. A teacher cannot begin to understand the perspective of the learner without first considering one's own system of values and attitudes about teaching and children's learning.

Research is needed that combines qualitative and quantitative methods for examining teaching-learning contexts in early childhood settings. Particularly, careful ethnographic studies of collaborative activity between adults and children and among peers in many different activity settings are needed to better understand responsive teaching in the zone of proximal development. Further, research is needed to test instructional approaches based on contextualist and interactionist views of development in early childhood classrooms.

Head Start has been interested in funding research focusing on innovative programs and intervention strategies designed for children and families from diverse populations. We envision Head Start as a leader in providing research funds to adopt, develop, and/or test responsive teaching models that are developmentally and culturally relevant in different contexts. In a time when many new challenges and opportunities exist in the area of early childhood education, it is important to examine the professional and personal knowledge systems that guide teachers in their practice to determine if this practice is responsive and relevant to the sociocultural contexts in which children develop. Collaborative exchanges in which teacher and learner work together to achieve mutual understanding of purpose and perspective may be an effective way to optimize learning that is both developmentally and culturally appropriate.

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Families and Adaptive Change: Rethinking Training and Intervention *Claude Goldenberg, Thomas Weisner, Ronald Gallimore*

The predicament of America's poor children has become a regular feature of press and foundation reports. From Los Angeles to New York, media portrayals of poverty and its effects have become depressingly commonplace: nearly one in four children under the age of 6 lives in poverty; half of all African-American and two in five Hispanic children live in poverty; children living in poverty are nearly seven times more likely to suffer from abuse or neglect as children not living in poverty; poor, minority children are more likely to lag behind in school and to drop out before graduation than are non-poor and non-minority children (Barden, 1990;

Committee for Economic Development, 1991; De La Rosa & Maw, 1990; Haycock & Navarro, 1988; Keen, 1990; Schreiner, 1991; William T. Grant Foundation, 1988).

If the national media and academic and professional publications are any indication, there is no shortage of ideas for helping children in trouble or at risk. But however the discussion begins, it sooner or later comes around to family intervention. Over the past three decades, family intervention programs have indeed compiled a record of some success and maintained a cadre of enthusiasts (e.g., Powell, 1988a; Sigel & Laosa, 1983). Family interventions have produced immediate gains on cognitive and achievement measures, positively influenced teacher and parent evaluations of children's functioning, and reduced special education placement and grade retentions. Moreover, parents' responses to programs and interventions have been "overwhelmingly positive" (Florin & Dokecki, 1983). Despite these successes, family intervention has also been controversial. Sigel (1983), for example, has expressed concern about the ethics of family interventions, which inherently have an "authoritative conception of the good, the desirable, and the healthy". In a democratic and pluralistic society, how far are we willing to go in imposing such concepts, even if they are, presumably, based upon scientifically validated research? Moreover, who is to be the model for "optimal" parenting? Farran (1982) has decried interventions that try to remediate deficiencies in family functioning "by attempting to make [all] parent[s] behave like middle-class parents". These issues will become even more troublesome as our society becomes more diverse -- increasingly minority, non-English speaking, from non-nuclear families, and with varying lifestyles (Committee for Economic Development, 1991; "Dealing with Diversity," 1989; Weisner, 1986). For these and other reasons, professionals are shifting their conceptions of family intervention (Powell,1988b). Clearly, we are in a period of transition with respect to parent training and family intervention. How we resolve certain issues will no doubt influence the shape of these programs in the 1990s and beyond.

But what are some of the principles that should guide parent and family intervention programs in the coming decades, particularly in a society that is becoming increasingly heterogeneous? This is the question we pose in this paper, and we draw on research spanning over 20 years with several different social and cultural groups to suggest some answers -- native Hawaiian children and families, Spanish-speaking children and Mexican and Central American immigrant parents, Euro-American families with a developmentally delayed child, and Euro-American families with nonconventional childrearing values and practices. There are children in all these groups who would quality for Head Start, although more from some groups than others. We have included findings from these studies because we feel we have learned valuable lessons relevant for research and policies aimed at changing family functioning.

Our central thesis is that family intervention programs must take into account family values and how families initiate, manage, and respond to change. The reason is simple. Schools and other institutions not only send interventions home, families receive them as well (Goldenberg, Gallimore, & Reese, 1991). Interventions are received by families who have established a routine of everyday life, which to varying degrees they struggle to sustain and improve. Every family works in varying ways to accommodate their daily routines to one another and to the exigencies of life outside the home. Much of what families do to create, sustain, or change their everyday routines for children (e.g., getting up, preparing for school, mealtimes, recreational time, how and when to spend time together) reflect parents' beliefs and values about the experiences children need to develop properly. Interveners who ignore the family as a generator of change and as a proactive recipient of change efforts risk failing to take advantage of available opportunities to achieve mutually desired goals. This, then, increases the chances that interventions will have minimal, perhaps even negative, effects.

The family and household are the settings where the dynamics of social adaptation and cultural evolution are often most visible. Under some circumstances, families can be significant originators of changes; they can be highly innovative, anticipating secular trends that will eventually be widely adopted by the society at large. Yet, under other circumstances, families are conservative, wary, and unchanging; they will protect themselves and their offspring from short-term changes and misfortunes in the service of longer-term stability (Weisner, 1986). This suggests that families are actively socially constructing their everyday lives. Although families are certainly influenced by the well-known social, political, economic, and cultural conditions around them, which are known to influence family functioning and behavior, families also proactively transform these conditions. Families are not, in other words, merely hapless victims of their social position. Intervention programs that appreciate the complexity of how and why families receive intervention efforts should fare better than programs that do not.

In the following, we present some principles derived from our different research projects that could be useful in the design of family intervention programs. We propose an approach that takes seriously families' own attempts to maintain viable settings for household members. This approach is less directed at training parents and more aimed at building upon existing values, knowledge, skills, and practices. The broader context of our approach depends upon a conception of the family as a proactive, sometimes idiosyncratic entity that occasionally initiates change on its own, but will invariably respond in some way to the change efforts of others.

Families vary within cultures; individuals and families have a range of culturally acceptable options available to them. Cultures are not monolithic. To the contrary, cultural features at the level of the child's and family's everyday experience can be highly variable. Weisner, Gallimore, and Jordan (1988) observed extreme variability among native Hawaiian families with respect to use of sibling caretaking, which has often been portrayed as characteristic of Hawaiian families (Gallimore, Boggs, & Jordan, 1974; Weisner & Gallimore, 1977). Hawaiian parents treated sibling caretaking as a valued and available practice, but whether they used it depended

upon many factors. At the level of a culturally available schema, for possible practice, shared caretaking is important and essential to understand; at the level of family practices -- and, therefore, what children experience - it is a highly variable experience.

Within Euro-American families on the mainland there is great variability as well. Perhaps the most dramatic illustration of this comes from the countercultural movements of the 1960s, when many families self-consciously and explicitly adopted alternative family arrangements and circumstances. Many countercultural families consisted of single mothers, social contract couples, and communal families, differ in considerably from the traditional nuclear family associated with mainstream America. Among many countercultural families, moreover, there was a commitment to experimentation, which sometimes led to a high rate of change in spouses or mates in the early years of children's lives (Weisner, 1986).

Non-traditional family arrangements, however, and the non-conventional values they reflected did not necessarily lead to adverse outcomes for children -- if the families were committed to their alternative values and lifestyles. In families committed to their values and lifestyles, children did as well on academic and socio-emotional outcomes as the children of more traditional two-parent families, even if the family experienced poverty, change, and instability. In contrast, in the absence of such commitment, non-conventional family arrangements, particularly if they led to increased instability, put children at risk for poorer developmental outcomes (Weisner & Garnier, 1991).

These data suggest that a wide range of practices is possible within any cultural group. The extent of uniformity of belief or practice within an ethnic community, for instance, must be empirically assessed, not assumed. Moreover, a wide range of practices can support desirable outcomes for children in North America, particularly if families have a coherent and reasonably consistent set of beliefs and values to which they subscribe and that they use to give meaning to their chosen lifestyles.

Even in culturally diverse settings, compatibility between the home and other social institutions is often greater than surface differences would suggest. Just as there is diversity within cultural groups, there is also commonality across different cultures. We have found, indeed, that diverse cultures can support common, desirable goals and values. This suggests that interventions can build upon commonalties between families and interveners, rather than always assuming chasms that must be bridged. For example, many Latino immigrant parents of children attending kindergarten and first grade in the U.S. -- children who are at high risk for poor achievement (De La Rosa & Maw, 1990; Haycock & Navarro, 1988) -- endorse values identical to traditional mainstream values about the importance of schooling and hard work. Some also set up activities and routines designed specifically to help children succeed academically (Goldenberg, 1987, 1988; Reese, Goldenberg, Loucky, & Gallimore, November 1989).

Parents see education as the key to economic and social mobility. One parent said, "Whoever does not have a profession or a career is nothing in this life" (*El que no tiene una profesión o una carrera no es nadie en esta vida*). Another said that an education is crucial because whenever one looks for a job, "How far one has gone in school is the first thing they ask you" (*Hasta dónde llegó en la escuela es lo primero que le preguntan a uno*). (Goldenberg, 1987, p. 167). Although parents see themselves as their children's primary socializers, rather than their teachers in an academic sense, they nonetheless express an interest in becoming actively involved in children's academic development (Goldenberg, 1987; Goldenberg & Gallimore, in press). Usually, they feel they can accomplish this by helping children with school lessons or supervising their homework. In the vast majority of cases, parents do not need specialized training or an intervention to accomplish this. Rather, they need specific and systematic information from the child's teacher regarding how they can help their child succeed in school. If parents do not take more initiative to help their children academically, it is not because of lack of interest or ability. Rather, it is from not knowing what specifically they can do. Since nearly all the parents with whom we have worked have attended school in Mexico or Central America, they feel unfamiliar with "the system" here, and many express fear of confusing their children (Goldenberg, 1987). Unfortunately, parents are often not provided with the appropriate information that would permit them to help their children succeed in school. Our findings suggest wariness against generalizations about conflicts between culture or values as we design interventions; families and social institutions such as the school might have more in common than they think. When we take advantage of this compatibility, we can see improvements in academic outcomes for children (Goldenberg & Gallimore, in press).

A principle means through which families achieve changes that effect children is by proactive modification of those aspects of their everyday routines they see as developmentally sensitive and meaningful for their families. The idea that the distal and proximal environment of a child and family is a powerful influence on children's development is a long-standing one in the social sciences (e.g., Bronfenbrenner, 1979). But, as we suggested earlier, powerful as the environment can be, families are not just hapless victims of implacable social and economic forces. Families can modify and counteract these forces to some degree. To do so, they use whatever resources they have to arrange their daily life -- a process guided by their values and limited by ecological and other constraints. From this mix of constraints, resources, and values, families construct a sustainable, meaningful, and coherent everyday routine. Our research suggests that families receive and initiate innovations through the everyday activities that make up their routines. Knowledge of such family activities is important for effective intervention.

Our longitudinal study of 102 Euro-American families who have a child with significant developmental delays reveals some of the varied ways families make changes in daily routines and thus in the developmentally sensitive experiences of their children (Gallimore et al., 1991; 1989; Weisner et al., 1991). The sheer number of different and substantial accommodations families made due to their delayed child is striking: some 680 accommodations were reported at ages 3 to 4 alone, and a comparable number when the children were 6 to 7. These accommodations involved 10 different domains in daily life: work and career, family domestic

workload, children's play and peer groups, information-seeking, child care, transportation, etc. Although hundreds of such accommodations occurred, they were not unusual or culturally non-normative. Families with delayed children were very similar to ones with developmentally normal children in this respect. These findings suggest that active family-generated interventions are continually occurring in large numbers, and that these families are not to be viewed as "deviant" population.

Although families certainly did not ignore the child's needs, the changes had to be sustainable and meaningful for the whole family (Gallimore et al 1989; 1991). This meant that proactive accommodations usually focused on family values or goals wider than just the delayed child's specific needs. Many of the families received a wide range of advice from medical, educational, and social service agencies and personnel; many vigorously sought out information on their own. But, in general, interventions by outside agencies were unlikely to be sustained by families if the families had to make changes in their daily routines that were too discrepant from those that had evolved through the families' own change efforts. Outside interventions were also at risk of not being adopted, or not lasting very long, if they were at odds with either distal or proximal environmental presses or with family' beliefs and values.

Although this series of studies certainly points to family accommodation, goals, and values as important influences on the fate of intervention efforts, none of these studies actually assessed interventions. We conclude this paper by examining the findings from one of our intervention studies. This study is a databased case example of the impact of proactive family behavior on an intervention intended to increase literacy development among Latino children.

The parents in the families with whom we have worked are immigrants from Mexico or Central America, although approximately three-fourths of the children were born in this country. Features common to parents included employment in low-paying and relatively precarious jobs, grade school educations, a deep belief in the value of education, willingness to assist children with schoolwork, relatively scarce literacy resources in the home, and a strongly felt impact of the school on family literacy resources and activities (Goldenberg, April 1990; Goldenberg et al., 1991). Despite important variations across the families, they nonetheless exhibited similarities in terms of personnel available and the educational goals for their children. They were also broadly similar in terms of types of tasks engaged in and materials used. All households participate, albeit marginally in some cases, in a literate society, and environmental print of some sort (labels, bills, ads, printed clothing, etc.) was observed in all homes. On the other hand, few books or magazines were observed in any of the homes.

In the intervention study with these Latino families, we created a set of simple, photocopied story books in Spanish. Once or twice per month during the school year a new book was introduced and used at school, then sent home. No special training was initiated, but teachers did suggest to parents that reading the books with the children would be helpful, and repetitive reading accompanied by conversation with the child would be especially helpful. As expected, we found that children in kindergarten classrooms using the books (and accompanying materials) at school and sending them home were more advanced in their literacy development than were children in classrooms using the district's basal program, supplemented by phonics-oriented worksheets (Goldenberg, April 1990). We were surprised, however, by a second finding. Although children in the "story book" classrooms had higher levels of early reading development than children in the "readiness and phonics" classrooms, observed use of the story books at home was unrelated to individual children's literacy development. In contrast, use of the phonics worksheets was strongly related to individual children's literacy development (Goldenberg et al., 1991). What explains these unexpected findings? We think it has to do with parents' own understandings of how children learn to read.

We know from our observations and interviews that parents have what is sometimes called a "bottom-up" view of how children learn to read (Goldenberg, 1988). Parents see learning to read as consisting, in essence, of learning to associate written language (letters, syllables, words, or passages) with the corresponding oral language. Parents do not attach nearly as much importance (if they attach any) to children's hearing books read repeatedly or to children having ample opportunities to learn to read, "pretend-read," or talk about simple books. In other words, the "emergent literacy" perspective (e.g., Smith, 1991; Teale & Sulzby, 1986) does not inform their understanding of the conditions under which children become literate. Families introduced the materials in ways that made sense to them--consistent, in other words, with their views about how children learn to read. The congruence between the worksheets and parents' beliefs led to their effective use in the home, and the more children used the worksheets at home, the higher their literacy attainment at the end of the school year. In contrast, the booklets were also used in a way that made sense to the parents ("these materials from school are supposed to help my child learn to read, and children learn to read by accurately associating written language with corresponding oral sounds"), but that was incompatible with the nature of the materials themselves. Story books make poor worksheets, and if they are used as worksheets they are unlikely to have any effect on literacy learning, which they did not -- use of the booklets at home had no bearing on literacy attainment at the end of the school year.

These results underscore the importance of considering the family context that will receive an intervention. No matter the intended and apparent value of an intervention -- for example, trying to increase meaning-oriented literacy activities -- not all parents will immediately regard these as developmentally sensitive experiences. While training parents on how to read to their children or transmitting knowledge to them about current theories of early literacy development might help produce changes in parent-child interactions and routines, at least in the short run (see, e.g., Delgado-Gaitan, April 1990; Edwards, 1989), we question whether the changes will be self-sustaining. It is more likely interventions will be sustained if they can be into activities that are meaningful to parents. If entirely new everyday routines must be created, with new purposes, motives, and scripts, a change is less likely to survive once the apparatus of the intervention is removed. We should note that parents' understandings of the literacy

learning process are not entirely without foundation. Learning letters and sounds helps children learn to read, although they need many other print-related experiences as well (Adams, 1990). Thus, parents can engage in activities with their children that are both meaningful to them and consistent with current understandings of how early literacy develops.

Few assumptions are more pernicious and socially mischievous than that culture can be treated as a trait label for individuals. Cultural norms and practices are variable across and within families and individuals. We must understand the diversity, as well as the central tendency, within any cultural group with which we wish to intervene. Since cultural influence is not a uniform trait, interventions need not, indeed should not, be limited to what families already do. Nor do interventions need to be isomorphic with what is already culturally modal. Similarly, cultural constraints on our interventions and their goals are real, but not severely restrictive in most cases.

The larger point is this: If we are to design interventions that are effective and sustainable, they must take into account the family's active role in social adaptation and cultural evolution. This means that we must be aware of the active role families play in designing contexts for children's development. Just as we are long past the notion that individuals are blank slates or empty vessels, so too must we disavow the idea that families are passive recipients (or, alternatively, reactive rejectors) of our interventionist largesse. Families are constructing the everyday activities within which we hope to make interventions; effective, sustainable interventions depend on understanding these proactive family adaptations.

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Discussion *Lourdes Diaz Soto*

Each of the fine papers presented here today provides a unique contribution and has important implications for practice, policy, and research. Demographic data clearly indicate that our youngest learners who are increasingly culturally diverse will be served by increasingly homogeneous educators. The younger ages, the higher birthrates, and the continued immigration are indicative of the need to gain insights about cultural identities and educational practices affecting the socialization of our youngest

learners. It appears particularly critical at this time in our nation's history to disseminate specific and accurate research information, capable of informing not only practitioners, policymakers, and researchers, but also parents and the public at large.

The three papers have presented practical applications, a strong theoretical framework, and an alternate view of family intervention. The first paper, presented by Huber and Pewewardy, initiates a taxonomy of learner characteristics, earmarked for teacher education. The need for research viewing teacher preparation in an increasingly culturally and linguistically diverse context is compounded by evidence that institutions of higher education are struggling with issues of diversity. Colleges of education, committed to enhancing teacher education, have inherited opportunities to design innovative and pioneering programs capable of meeting the educational and leadership needs of the 21st century. Questions arise about the specific content, the particular process, and the needed knowledge base capable of impacting present and future educational practices. Whose knowledge base, whose world view should be integrated into the existing programs -- these are questions that need to be addressed. Huber and Pewewardy state that "when school culture conflicts with home culture, the learner suffers." The implication here is for curricula that are congruent and complementary, and for what the authors term "culturally responsible pedagogy." The message our youngsters receive in educational settings can be both implicit and explicit. Their knowledge base and world view become critical elements in the daily lives of whole generations of young children. Early childhood practitioners in our nation continue to shed light and advocate on behalf of our most valuable resources -- our youngest citizens. How to best serve the needs of citizens who cannot vote, whose voices are not heard at policy meetings, and who cannot testify before Senate deliberations is the challenge before us. Whose knowledge base, whose world view will best represent young children's interest? Issues of power and ethical responsibility need to be addressed in order to implement an education that is multicultural and represents the world view and knowledge base imparted by culturally and linguistically diverse people. A learning environment sensitive to the unique needs of young learners can be implemented on a daily basis by knowledgeable practitioners. The knowledge base and the experiences provided by colleges of education are of paramount importance. The mandate for colleges of education is to meet the needs of existing teachers and learners, as well as to design visionary, process-oriented programs, capable of impacting future educational needs. Huber et. al. call for social and institutional change, coupled with attitude change, in order to achieve culturally responsible pedagogy. The authors call for collaboration among families, schools, and community when providing quality education. Practical applications are provided on behalf of Native Americans, Blacks, Hispanics, and Asian Pacific islanders. It may be that the information provided by this literature review could be shared with knowledgeable multicultural experts for a feedback regarding ways of emphasizing similarities and differences among groups, yet avoiding stereotypical interpretations by non-experts. Teachers may find these ideas valuable as a handbook or a manual aimed at initiating discussions and critical reflections. Conceptualizing these ideas within a bilingual, bicultural educational framework may be useful, as might the idea of exploring inter- and intra-generational differences. Education that is multicultural will benefit from additional knowledge, viewing differences and similarities among people regarding race, class, gender, religious beliefs, languages, immigration, migration, and values. The authors may want to develop scenarios with ideas such as eye contact or teachers' judicious use of their voice, which could be used in multicultural teacher-education courses and staff-development programs to further inform practitioners.

The paper presented by Stremmel et al. provides a strong theoretical base. These authors are also interested in affecting teacher education by providing insights regarding possible applications and needed research directions. The authors note that "the almost exclusive focus on autonomous learning and play, endorsed by early childhood experts, ignores the large body of research that demonstrates the potential of other contexts to influence child development." Yet the call for developmentally appropriate practice by early childhood educators has been to enlighten practitioners, parents, and the public at a time when didactic, structured, narrow training and hothousing curricular approaches continue to be implemented. The authors call for a balance among spontaneous and contrived interactions, and note that such collaborative exchanges among teachers and learners will optimize learning that is both developmentally and culturally appropriate. Empirical evidence, particularly with young children, is clearly needed to guide practitioners and teacher-educators. The work of Irv Siegel and his colleagues at ETS with distancing strategies and the model of young children as thinkers may also shed light on these issues. The idea of balancing culturally appropriate and developmentally appropriate practice, which is individually sensitive, is indeed a challenge, yet necessary for researchers, policymakers, and practitioners to explore and critique. What constitutes optimal early childhood practice is based upon young children's best interests, keeping in mind that young children have multiple needs and that each particular child will benefit in each particular context from collaborative and multiple interactions. Various theoretical frameworks, including Vigotsky's zone of proximal development, Siegel's distancing strategies, and others, can begin to enlighten the cognitive needs of our youngest learners in multiple contexts. The idea that teachers need to incorporate reflective practices is crucial to enhancing the field of early childhood education. Teacher education programs that provide opportunities for self-reflection, as advocated by the authors, are clearly needed. One early bilingual teacher education program coupled a field practicum in a culturally and linguistically diverse community with critical self-reflection and found differing attitudes by master-level teachers ranging from elitist, to compassionate, to empowering perspectives. Additional program experimentation and research is sorely needed in this area. The children's point of view needs to be represented.

What constitutes continuous and discontinuous practice for young culturally and linguistically diverse learners? Previous studies have revealed insights into Native-American children's participatory structures, Hawaiian children's ability to benefit from congruence among home and school language-arts practices, and the need to elicit culturally appropriate measures of intrinsic

motivation for Hispanic children. We need to continue to view culturally and linguistically diverse young children and their respective families within existing ecological frameworks as they negotiate meaning among and within contexts.

The Goldenberg et al. paper is an example of an interdisciplinary collaborative research endeavor. This paper summarizes several long-term studies and provides implications for family intervention strategies. The paper initiates discussion about children reared in poverty, although not all of the studies evolved around this theme. One study for example, viewed non-conventional, often high-income, Euro-American families. The authors continue to raise the question regarding optimal parenting, and propose that intervention, enhancing family function, must be meaningful and sustainable to the family's daily routines. This importance of considering a family context that will receive an intervention is highlighted, as is the need to unpackage cultural features in order to avoid labeling individuals. The idea of rethinking training and intervention is important in both research and practice involving parent education. Practices that encourage yardstick comparisons among groups of families or recommend pre-packaged programs will not inform or enhance the educational lives of culturally and linguistically diverse young learners or their respective families.

Early childhood educators and policymakers interested in impacting families need to design meaningful programs, integrate culturally relevant and class relevant strategies, and think of parents as collaborators from the onset to the final stages of a program. A pilot program with Hispanic families within the Commonwealth of Pennsylvania initiated and delivered a tailor-made and individualized parent-education program, which, first, conducted a needs assessment, and, second, viewed parents as educators of young children and of master teachers. Scholars and educators need to realize that they are not the only parenting experts, since families have much to share and teach this continually evolving field.

The need for continued research and the consideration of ethical policy issues is evident. With culturally and linguistically diverse young learners in particular, deficit philosophies need to be avoided, so that the strengths and positive attributes of parenting in a multicultural society can be further appreciated. Culturally and linguistically diverse families have much to teach a society struggling with issues of race, class, power, beliefs, and values.

Finally, each of the papers has provided a slice of the critical issues faced by early childhood educators and parents involved in teaching culturally and linguistically diverse preschoolers. Future research and policies have been recommended that will continue to inform the daily practices so crucial for our youngest learners. The authors call for policies and practices that will effect changes in teacher education and family intervention capable of enhancing the lives of both present and future generations. Collaborative approaches have been modeled and called for in this newly evolving field. We need to continue to avoid stereotypical and deficit philosophies when teaching all of our young children so that the early socialization process will bear the fruits of a caring and compassionate group of human beings. Practice, policy and research also needs to be coupled with advocacy in order to preserve, protect, and highlight childhood's world view. Whose world view? The particular child and the particular family's world view needs to be understood and celebrated by practitioners, researchers, and policymakers.

AUDIENCE DISCUSSION

Three issues were raised. The first concerned teaching approaches and how responsive teaching differs from Piagetian-based models (such as High/Scope) that are espoused by professional educational organizations like NAEYC. Some audience members felt that the High/Scope model was similar to responsive teaching strategies in that High/Scope does not just create a facilitative environment, but advocates a style of talking to children and encouraging them to think about what they are doing. Stremmel responded that responsive teaching involved more teacher direction, including modeling, explanation and demonstration. He further commented that many early childhood educators think that they primarily use Piagetian techniques when, in fact, they do not. They probably use a variety of approaches including Vygotskian, behaviorist and social learning theory. A cornerstone of responsive teaching is usually lacking in traditional child-centered programs. The debate continued as the issue of teaching letters and numbers, and using phonics workbooks was raised. A Federal Project Officer felt strongly that parents have deep-seated beliefs about how children learn and that child-centered approaches are designed to educate parents about developmentally-appropriate expectations for their children. Stremmel maintained that learning about sounds and letters contributes to literacy and may be most amenable to parents' belief systems. As they feel comfortable and competent in helping children around these concrete tasks, other ideas and theories can then be introduced.

The second issue centered around teacher education. An audience member gave an impassioned plea for new ways of training teachers and new strategies for changing teacher attitudes to be more responsive to the needs of children and their families. She witnessed dictatorial rules and indifferent behavior toward children in the teachers she observed in her city's day care centers. The need for taking into account the context of teacher training programs also was mentioned. How are universities supporting new approaches to teacher training in their programs? What has happened to accreditation efforts for day care centers? What about salary equity for Head Start teachers?

Continuity between home and school was the third issue discussed. Goldenberg argued that providing experiences to children that are incongruous with their everyday experiences at home was one of the primary missions of preschool. Children need to be prepared for the realities of school life and the larger society. Others felt that a careful balance needed to be achieved because all too often schools impose values that are inconsistent with a family's cultural background. What has happened to culturally and linguistically diverse learners and their families is that their school experience is so dystonic that the family fails to integrate into the

"school's culture," producing school failure in their children. Parent involvement allows the goals of the school to be more shaped by what families can contribute and helps ensure cultural sensitivity and awareness of diversity.

Huber and Pewewardy note that literacy and school success may be transmitted in more ways than traditional written methods. For example, Native Americans transmit culture through oral tradition. Visual literacy is a primary part of Mexican culture. Teachers must be sensitive to a wide variety of learning styles and cultural traditions if they are to successfully educate the heterogeneous mix of children in our nation's schools.

Panel 102 THE ROLE OF GRANDPARENTS IN THE DEVELOPMENT OF YOUNG CHILDREN

Chair/Discussant: **Urie Bronfenbrenner**

Profiles of Grandmothers Who Provide Care for Their Grandchildren *Roberta L. Paikoff, Nazli Baydar*

The data that we have used come from the National Survey of Families and Households, which was conducted from 1987 to 1988. This study surveyed adults, 19 and older, living in households with over-samplings of minorities, non-nuclear families, cohabitors, and people who were recently married. Out of the sample of 13,000 we were able to identify approximately 2,000 grandmothers -- non-institutionalized women who have at least one child who is 19 years old or older and is a parent. Possible sources of bias in this sample are grandmothers in poor health, because institutionalized women were not surveyed, and paternal grandmothers, whose only grandchildren are co-residing with noncustodial adult sons.

First, a descriptive profile of the American grandmother. She is approximately 60 years old (2% are under 40, and 58% are between the ages of 50 and 70). The majority of the grandmothers live in metropolitan areas. Eleven percent of the grandmothers in the sample are Black, 4% are Hispanic, the remainder are white. The majority of these grandmothers (61%) lived in married-couple dwellings. One-quarter of them lived alone in one-person dwellings. Eleven percent lived in extended-family dwellings, and about 5% in other situations, where they were either cohabitating or residing with nonfamily members. The majority were not currently employed, but the vast majority had worked at some point in their lives. Average education was about 11 years, so the modal response for these grandmothers is non-high school completion.

Depressive symptoms were assessed in this sample using the Center for Epidemiological Studies measure of depression, a 12-item abridged scale from the larger 20-item scale. Depressive symptoms reported are fairly high. Self-satisfaction was assessed on a one-item measure, one to five, where grandmothers self-rated the degree to which they were satisfied with their lives. Ratings of self-satisfaction are fairly high. Health status was assessed by two scales: a physical-limitation scale with six different items that asked people if their activities were limited in any way, and a one-item, one to five rating of physical health.

In addition to these general descriptions, there are important differences based on ethnicity. Hispanic grandmothers tend to be younger than either Black or white grandmothers. White grandmothers tend to be older than either Black or Hispanic grandmothers. Additional differences by ethnicity have to do with forms of residence. In each ethnic group the largest percentage of grandmothers lived in married-couple households. For Black and Hispanic grandmothers the second largest percentage lived in extended-family situations, while for the white grandmothers, the second largest percentage lived in one-person situations. A corollary of this is that a larger percentage of Black and Hispanic grandmothers are co-residing with grandchildren. The level of education is quite different also, and depressive symptoms are higher in Hispanic grandmothers than in either Black or white grandmothers. To summarize, minority grandmothers tend to be younger in age, live in larger households, have larger family sizes, be a little less likely to live in a couple household, and more likely to live in multi-generational households, thus more likely to co-reside with grandchildren. They also tend to have poorer psychological health than do white grandmothers. In addition, there are differences between the two minority groups. Black grandmothers have poorer physical health, higher rates of social participation, and higher rates of employment than do Hispanic grandmothers.

The profiles of grandmothers who do and do not provide care to their grandchildren indicate that demographic and socioecoomic characteristics, i.e. health, well-being, and time use, are all associated with caregiving. These co-variates tend to be interrelated, so the strength of the association between these characteristics and caregiving needs to be examined in a multivariate context. To achieve this we used multivariate logistic regression models to estimate probabilities. These models do not reflect a causal process, given the cross-sectional nature of our data. For example, we cannot really establish whether lower self-satisfaction scores among grandmothers who provide care is a factor that accounts for selection of grandmothers who do provide care or a consequence of dissatisfaction with caregiving.

Overall, 44% of the grandmothers provide care for grandchildren, and caregiving is not significantly associated with ethnicity. There are only slightly higher rates for Blacks, at 46%, and for Hispanics, at 49%, than there are for whites, at 42%. Characteristics that are positively associated with care provision are being younger in age; number of children -- the more adult children you have the more likely you are to be providing care for at least one of them; living in couple households -- living in a

married-couple household increased the probability of providing care by 18%; living with a grandchild increased the probability of providing care by 70% -- people who co-reside are much more likely to be providing care for their grandchildren.

Single grandmothers are more likely to be working and less likely to be giving care, although being employed is also positively associated with caregiving as well. I suspect that in married-couple households it may be that there is more time because there is someone else to help with chores, household issues, and working and possibly bringing in some money. Co-residing with a grandchild, higher educational attainment, and employment are also associated with providing care. The more physical limitations people reported the less likely they were to be providing care for their grandchildren. The lower the self-satisfaction scores, the more likely grandmothers were to be providing care for their grandchildren. Again, the causal process cannot really be determined. Also, the more participation in social organizations the more care provision is going on. There is no association between care provision and depressive symptomatology as measured by the CESD.

The logistic analyses just presented provide an understanding of co-variates of caregiving. But as noted before, many of these co-variates are associated with each other. For example, co-residing with grandchildren, working, and being younger are positively associated with providing care. Though ethnicity is not significantly associated with caregiving when other characteristics are controlled, Black grandmothers might be more likely to have these characteristics than white grandmothers.

In order to be able to identify groups of grandmothers with similar sociodemographic characteristics in caregiving behavior, we used cluster analysis, a statistical procedure that allows us to examine the systems and organization of variables in groups of individuals rather than merely associations between variables. We make the person rather than the variable the level of analysis. There is an excellent discussion of this for people who are interested in the technique and the differences in trade-offs between the two approaches in Jack Block's book Lives Through Time. The different topologies of grandmothers, the characteristics that contributed to identification of these clusters, were age, ethnicity, number of adult children, household size, household type, co-residents, education, employment status, physical limitations, and self-satisfaction.

The first group that we found (46% of our sample of grandmothers), we term "middle-class grandmothers." They have relatively high educational attainment for this sample. The majority are living in married-couple households, and their mental and physical health is high. They have the highest level of reported chore load, and few are providing care (29%) or co-residing (3%) with grandchildren. Blacks are under-represented in this cluster.

Our second group we term the "elderly and isolated grandmothers" (23% of our total grandmother population). These grandmothers have the highest mean age and the lowest number of adult children. They have a very low proportion of provision of care (30%), as well as low levels of employment and household chores. All of these grandmothers live alone.

Our third group is young, employed, caregiving grandmothers (16% of the total grandmother population). These grandmothers have the youngest mean age, a very high proportion of co-residents (26%), and an extremely high percentage of care provision (98%). Almost all of these grandmothers are providing care for grandchildren. They have relatively high employment and education (high school completion and perhaps some college). They have relatively low depressive affect and report high physical health.

Our fourth group is what we have called "metropolitan grandmothers" in extended-family households (10% of our grandmother sample). Educational attainment here is relatively low and grandchild care provision is high (38%). Relatively poor psychological well-being is reported, and there is low participation in social organizations. Hispanics are over-represented in this cluster. Co-residents with grandchild in this cluster are relatively high.

Our fifth cluster is Black grandmothers in multigenerational families (5% of our sample). They are relatively young and have the largest household size and relatively high levels of caregiving (49%). Sixty-two percent of these women co-reside with a grandchild. They report poor psychological and physical well-being, relatively poor health, relatively high chore load, and tend to be over-represented by metropolitan and southern grandmothers.

To sum up, the role of the elderly and intergenerational relations within the family and the meaning and consequence of these relations for family members have been issues targeted by a substantial body of research. What we have focused on are the prevalence of providing care for grandchildren among grandmothers and the consequences, or at least the correlates. Although styles and circumstances of caregiving by grandmothers may have been studied extensively, the issue of prevalence has received limited attention. Our estimates of prevalence of providing care for grandchildren on a regular basis was quite high, ranging between 40% to 50% of the three ethnic and racial groups. It is clear that a large proportion of grandmothers from all racial and ethnic backgrounds are involved in the care of their grandchildren at any given time. This is contrary to claims that grandparent-grandchild relationships are becoming increasingly distant.

Effects of Child Care Arrangements and Grandmother Care on 3- and 4-Year Olds

Jeanne Brooks-Gunn, Nazli Baydar

As we know, there has been a large increase over the last quarter century in the proportion of working mothers with young children. Today, one-half of mothers with children 1 year of age and almost two-thirds of mothers with toddlers are in the work force . The expectations are that by 1995 two-thirds of infants and toddlers will have mothers in the work force. These trends have

generated research debates on the effect of non-maternal care and maternal employment on young children, and policy debates on the need for high-quality child care, its cost and availability. It is important to determine how these issues intersect with Head Start.

Somewhat surprisingly, research on the effects of maternal employment on children and the effects of child care on children have remained almost entirely separate. The only exception would be the programs that have tried to reverse the negative effects of poverty on young children. Some of these programs have paid attention to maternal employment as well.

The maternal employment debates came out of worries about negative effects of separation on young children. The literature to date almost exclusively deals with looking at stranger anxiety or separation and attachment in 1-year-old children. These studies tend to focus on middle-class mothers of white children. One has to think about the results of these studies in terms of the fact that they are small samples in their particular population of children. Some of the studies, but not all, suggest that there are negative effects of maternal employment in the first year of life on white middle-class boys, but not on white middle-class girls. The question is why, and what mechanisms underlie these findings? None of these studies has looked at the type of non-maternal care that these children receive in order to determine if some of these effects would be found in larger and more representative samples.

The second type of research that we know about has to do with child care received. Much of this literature comes out of research on poor children in programs like Head Start. The evaluations we have of early childhood programs for poor children have not looked, for the most part, at differential effects of the intervention for children whose mothers are employed and for those whose mothers are not employed. Researchers have not taken the comparison groups in our big early childhood demonstration programs and looked at what kind of child care those youngsters are receiving. If you think about when Julius Richmond and Bettye Caldwell did their original study in 1964, probably not as many of those mothers in the comparison group were employed. Today we have a very different situation, which must be considered when large demonstration projects are designed. Mothers who are not in these programs are doing something very different. Our data come from children in the very large sample from the National Survey of Youth. This is the nationally representative sample of youth, ages 14 to 19.

Looking at maternal employment and child care patterns, and combining the two literatures on effects of maternal employment with effects of child care on children, may better indicate what kinds of effects we really do get. Our first question has to do with the effects, both cognitive and behavioral, of maternal employment over the first three years of life. What are the outcomes for these children at ages 3 and 4? I am using the Peabody Picture Vocabulary Test, with all its problems, to measure cognitive levels and a maternal report measure of behavior problems developed by Nicholas Zill and others. On that measure, a higher score means more behavior problems, while on the PPVT a higher score indicates higher verbal ability.

Given the previous literature, we expected a small effect. However, a significant effect on functioning at ages 3 and 4 was found to be related to maternal entry into the work force in the child's first year of life. We expect to find no effects of maternal entry into the work force in the second or third years of life. These kinds of hypotheses are generally not tested. Some researchers hypothesize that there will be continuing negative effects of maternal employment when children are toddlers. Our interpretation of the scanty literature was that there would be no effects.

Our second question deals with continuity, intensity, and timing of maternal employment. We want to look at more than just whether the mother is employed or not. This not generally looked at, except for a few studies that have obtained data on the number of hours the mother worked in the child's first year of life, in order to see if that made a difference. We are also interested in when, in the child's first year, mothers go back to work. Some people thought it was counter-intuitive to look at which quarter in the child's first year that the mother returns to work. Our theory is that the second and third quarters may be worse for babies than the first or fourth quarter. This hypothesis is based on that being the time (second and third quarters of the first year) that person permanence is developing. Changing what the baby is experiencing during the time that she/he is trying to form representations of people may be more difficult than the mother returning to work earlier, when person permanence is not yet an issue. By the fourth quarter, person permanence is established, so that children could handle their mothers' leaving and returning in a pattern that they had not previously experienced.

Our third set of questions asks about the types of child care arrangements that are being used by the working mothers. The national data set that we used had no information on quality of child care.

Our sample is 572 white 3- to 4-year-olds from the National Longitudinal Study of Youth. There are another 450 youngsters in the 3- to 4-year-old range, divided between Blacks and Hispanics. The effects that we wanted to look at were not possible for Hispanics separately, because of small sample size. In the Black sample we were able to look at the first question, given sample sizes, but not the last two. So in this presentation I will focus primarily on the white sample.

Again, we looked at child outcomes at ages 3 to 4 -- the effects of employment, measured continuously. The national study gathered week-by-week histories of employment by women. The mothers in this study are being interviewed yearly. In 1986, all of the children born to the women in the national sample were also seen. Ours is a subsample of those women who have had children. The children of these women were seen in 1988 and in 1990. Any women who subsequently have children are added to the sample. Over time, more and more women from the original sample have become mothers. Our information comes from the data collected in 1986. At that time, the child care measure was retrospective. In general, our data on maternal employment are in line with other national data. The percentage of mothers employed in the child's first year is probably a bit high because we looked at the second half of the year; mothers go back to work in greater numbers during the third and fourth quarters of the child's first year.

Another issue is that of full-time versus part-time employment. This is a problem for Head Start since many centers do not offer full-time care. We find that the percentage of mothers employed 20-plus hours increases dramatically over these three years of the babies' lives. Few mothers who work part-time report using alternative child care arrangements in the first year of their child's life. The majority say that they are the primary caregivers. Clearly, this group is probably doing a lot of juggling and using people in the household. They are probably patching together many different child care arrangements, and therefore do not think that they are using a regular child care arrangement. Many of these women possibly work split shifts, or are doing some work in the home.

Grandmother care here is the most prevalent type of non-maternal care for all employment status groups. This category of care is especially prevalent during the child's first year. During the second year of life there are changes in the type of care that is offered; however, grandmother care remains the most used. Year by year and compared to the other groups, grandmother care is the most prevalent in years one and two. Non-relative care increases in year two. Only 10% use center-based care in the first year of the child's life; but this increases to over 20% by year two. Since the advisability of center-based care for children in their first year is being continuously debated, we really need to know how many children of this age are in center-based care nationally. It is actually only a small percentage. These figures are very similar for the Black sample. Grandmother care is still the most prevalent across ethnic groups, and center-based is fairly low.

We divided our sample into four groups: 1) never employed in the three years, 2) entered the work force in the first year, 3) entered the work force the second year, 4) and entered the work force the third year. We controlled for a variety of background variables, because, to start with, the mothers who go into the work force early are different from those who do not. We have to consider that when we think about effects of employment on children. Controlling for poverty status, gender, and parity, the regressions do not change significantly. Scores on the PPVT continue to be slightly lower for children whose mothers worked during their first year. We see small but significant effect of more behavior problems in that group. Equally important is that there is no effect of mother's entering the work force in the child's second or third year of life.

For our second type of question regarding continuity, timing, and intensity we divided the sample into several groups. We were interested in whether children whose mothers went into the work force in the first year and stayed, i.e., continuously employed mothers across the four years, looked any different than those children whose mothers entered the work force in the first year or the last. There is a negative effect of a discontinuous pattern of employment -- being employed the first year and then not being employed the second or third year. Interestingly, the children of the mothers who were employed but then left the work force looked a little worse than the children of the mothers who stayed in the work force the entire time.

For hours employed in the first year of life, we are looking at "intensity of employment." The PPVT scores decrease with the more sporadically employed (11 to 19 hours) and increase with the those employed 20 hours or more. At the same time, there is an increase in behavior problems for the children of mothers working 21-plus hours. They were getting an intensity effect that was a little bit different from our two measures.

For the quarter of the year that mothers entered the work force analysis my theory was in part substantiated. There is a curvelinear relationship for the PPVT scores. The mothers who returned to work in the fourth quarter had babies who looked the best, compared to mothers who worked some time in that first year. However, the first-quarter babies did better than the second- or third-quarter babies. I would still like to determine if this has a relationship to person permanence. For the children of mothers who go to work later you see very low rates of behavior problems. The other three groups are about the same.

The final point has to do with how maternal employment intersects with caregiving. We took all the mothers who were working in the first year of their child's life and looked at effects of working in four groups. We looked at poverty and gender because all the results show poverty and gender effects. Our four groups are boys in poverty, girls in poverty, boys not in poverty, girls not in poverty, and three of the kinds of care -- center-based, babysitter (in or outside of the baby's home), and father. The children in poverty were doing least well on the PPVT, the children not in poverty had higher scores, and boys showed a greater deficit than did girls.

Mother and grandmother care seems to be most beneficial for poor children, particularly for boys. Another way to say it is that we see more negative effects for boys and poor children in center, babysitter, and father care of mothers employed in the first year of their child's life. This is a very important finding. When we talk about babysitter and center care we may also be talking about a quality of care -- care that poor families cannot afford.

We thought that father and grandmother care would look very good -- that was my original theory -- because we felt that fathers and grandmothers would have a long-term attachment and commitment to the baby, and also because they are present even when they are not providing child care. My guess is that fathers in the sample may be somewhat different. They may be split-shift fathers; they may be unemployed fathers; there might be something totally different going on with this particular group of fathers. But, in any case, the fathers are not showing the same positive effect that we found with the grandmothers.

We were also able to look at the effect of grandmother care in babies whose mothers were not employed. Positive effects of grandmothers are not found only when mothers are employed; we obtained exactly the same positive effects for the babies whose mothers were not working.

One group that looked different was poor boys cared for by a relative. This group showed more positive effects than did poor girls in a relative's care. However, these boys are still not doing as well as those cared for by grandmothers.

Grandmothers, Teenage Mothers, and 3-Year-Old Children: An Interdisciplinary Approach to Multigenerational Parenting *P. Lindsay Chase-Lansdale, Jeanne Brooks-Gunn*

During the past two decades, there has been a dramatic increase in single motherhood, due to high rates of divorce and a virtual explosion in non-marital childrearing (Cherlin, 1989). Approximately one-half of children born in the 1980s will spend part of their childhood in a single-parent family (Bumpass, 1984; Hernandez, 1988). Even higher percentages are predicted based upon more recent data (Hofferth, 1985; Norton & Glick, 1986); these projections range from 40% to 70% for white children and 85% to 95% for African-American children born in the late 1970s and early 1980s.

Given the economic strain on single mothers and the difficulties in managing child care and employment responsibilities, a common response has been the formation of multigenerational households. Families are thus configured quite differently. Two adult women -- the child's mother and grandmother (or grandmother figure) -- become the central caretakers or co-parents in the child's life. The major question in the present study is: How does multigenerational parenting affect child development? We take a family systems approach to this question, and our paper today will address the impact on children of grandmothers' co-residence and quality of parenting.

METHOD: Findings reported here are from the seventh wave of a large study of African-American adolescent mothers, begun over 20 years ago by Furstenberg and recently followed up by Brooks-Gunn and Furstenberg, known as the Baltimore Study. In our current follow-up, the original adolescent mothers are now grandmothers in their mid-30s, their daughters are young mothers; the children are 3 years old. A sample of 135 three-generation families, approximately half from the Baltimore Study and a supplemental comparable sample from a Baltimore prenatal clinic, was obtained. Approximately 21% of those families approached for the study refused to participate. Of the 135 families in the sample, complete videotape data were obtained for 103 families. For the present study, four families were excluded: one had moved from his mother and grandmother's home to his father's home, and three were living with grandmother only.

Family background characteristics include information on the mothers and grandmothers. Mothers had a mean age of 18.7 years at birth of first child (range -- 13.3-25.5 years); they had an average of 11.5 years of school, and a mean score of 75.57 on the Peabody Picture Vocabulary Test. Only 9% of the mothers were married, and an additional 12% were living with a male partner. Fully 88% of these mothers had been on AFDC at some point in the past, and 56% were currently on public assistance.

Grandmother figures at the time of interview were 44 years of age (range -- 25.3-72.5 years). The majority of grandmother figures were the mothers' biological mothers, and they too had become mothers during adolescence. (The mean age is higher here because six of the grandmother figures in our study are great-grandmothers; in addition, several surrogate grandmothers participated, some of whom were aunts of the child.) The grandmothers' level of education and PPVT scores are highly similar to those of the young mothers: 11.4 years of education and a mean PPVT score of 75.69. Twenty-seven percent of the grandmother figures were married, and an additional 11% were cohabiting. Forty-two percent of these women had never been on AFDC, and only 21% were currently on public assistance.

Almost 60% (57 families) of the mothers and grandmother figures were living together in multigenerational households. As we anticipated, this is a substantially higher rate of co-residence than was true of the adolescent mothers in the Baltimore Study a generation ago. In the 1970s, 30% of adolescent mothers in the Baltimore Study were living with the grandmother when the children were preschoolers (Furstenberg, Brooks-Gunn, & Morgan, 1987).

Two home visits were conducted with each family by teams of highly skilled, older Black women. The first visit involved the young mother and her 3-year-old child, and included developmental testing, paper and pencil tests of psychological adjustment, and an extensive interview of the mother's educational, marital, and occupational history, as well as perceptions of family support. The second home visit, scheduled three to six weeks later, involved a similar interview of the child's grandmother (or grandmother figure) and one hour of videotaped family interaction. These semi-structured interaction tasks assessed important components of the family system: the emotional quality of the mother-grandmother relationship, the functioning of the family (mother-grandmother-child triad) as a whole, the quality of the young mother's parenting, and the quality of the grandmother's parenting.

Our paper today focuses on these latter two relationships: mother-child and grandmother-child. Quality of mothers' and grandmothers' parenting was assessed by means of the Puzzle Task, adapted by Goldberg and Easterbrooks (1984) from the Tool Task originally developed by Matas, Arend, and Sroufe (1978). In this task, the child is presented with four puzzles of increasing difficulty, and the parent is instructed to let the child do the puzzles, but to give the child any help needed. During a 10-minute period (a 5-minute free play with blocks preceded the Puzzle Task as a warm-up), the child experiences gradual, mild frustration and needs parental assistance. Mothers and grandmothers were observed separately with the child in counterbalanced order, usually in living rooms or dining rooms, while the other parent was in the kitchen filling out questionnaires. Different, but equivalent, sets of puzzles were used with each parent.

The Puzzle Task is highly effective in assessing behavior that reflects important developmental issues challenging the preschooler. These include the emergence of a sense of autonomy and mastery, the ability to function well in the face of frustration, with minimal negativity such as aggression or non-compliance, combined with a flexible ability to draw upon the parent for security

and assistance when needed. Parenting practices that facilitate such social competence and emotional confidence in preschoolers include: supportive presence (i.e., encouraging the child's efforts, sharing in the joy of the child's accomplishments), quality of assistance (i.e., helping children see the connections between their own actions and task solutions, timing and pacing of hints, and allowing some exploration, rather than simply telling the child what to do). Children's and mothers' behavior in the Puzzle Task have been shown to relate to the quality of children's attachment relationships and to subsequent socioemotional adjustment and self-regulation (Sroufe & Fleeson, 1988).

The following parenting variables were coded for both mothers and grandmother figures from videotapes of the Puzzle Task: Positive Affect, Negative Affect, Quality of Assistance, Supportive Presence, Connectedness (a dyadic measure of closeness developed specifically for this study), Authoritative Parenting (combination of warmth and appropriate control), Authoritarian Parenting (punitive, cold), Permissive Parenting, and Disengaged Parenting (these four latter measures are derived from Baumrind's (1971) concepts of parenting as reflected in a coding system developed by Hetherington and Clingempeel, 1988).

Children's behavior was also coded separately for each session with mother and grandmother. The following variables were coded: Positive Affect, Negative Affect, Anger, Reserve, Enthusiasm, Persistence, and Compliance. For our purposes today, we will focus on a composite of problem behavior: negative affect and anger toward the parent. Two coders, blind to the hypotheses of the study and also to whether the parent was the mother or grandmother figure, were trained by a criterion coder. Reliabilities (assessed after training and then randomly over the course of coding for approximately 25% of the tapes) for all four systems (mothers' parenting, grandmothers' parenting, children's behavior toward mother and grandmother) were high: an average of 86% agreement, ranging from 74% to 100% across variables.

RESULTS: We designed our analyses to answer the following questions: 1) How does the quality of mothers' and grandmothers' parenting compare? 2) Is there evidence of continuity of parenting quality across generations? 3) How does grandmother co-residence affect the quality of mothers' and grandmothers' parenting? 4) Do mothers' and grandmothers' parenting affect children's behavior similarly, or is one more important than the other?

To answer the first question regarding the comparability of mothers' and grandmothers' parenting, we compared means and standard deviations for all affect and parenting variables. The means of mothers' and grandmothers' parenting are virtually identical. Neither did any differences emerge when we compared the parenting of very young mothers to that of grandmothers. Thus, it appears that mothers' and grandmothers' parenting are very similar. Either grandmothers do not provide superior parenting or the mothers in this sample are not as inadequate as implied by the meager literature.

To examine continuity across generations, we correlated mothers' quality of parenting variables with those of grandmother figures. There is evidence for both divergence and convergence of parenting across the generations. Mothers' and grandmothers' positive, negative, and reserved affects are correlated (.29, .29, .30, respectively, all at $p<.05$), in addition to one type of parenting style -- authoritarian (.36, $p<.01$). However, none of the other parenting variables are related. Thus, it appears that children in these multigenerational families are receiving a variety of parenting experiences from mothers and grandmothers, with the exception of the more punitive, harshly controlling style of authoritarian parenting.

Few studies address this issue the impact of grandmother's co-residence on parenting (Tinsley & Parke, 1984). Two well-known studies (earlier phases of the Baltimore Study, and the Woodlawn Study) indicate that presence of the grandmother has a positive effect on child outcome (Furstenberg, 1976; Furstenberg et al., 1987; Kellam et al., 1982). Yet, examinations of family processes related to grandmother presence have not been conducted.

We have developed four models that represent possible effects on parenting. Model 1, called "Modeling and Support," hypothesizes that grandmother's presence provides support and examples of good parenting to young mothers. Mother's parenting would be positively affected, while there would be no effect of co-residence on grandmother's parenting. Model 2, called "Conflict," hypothesizes that living together is difficult and that conflict between mother and grandmother would negatively affect both mother's and grandmother's parenting, paralleling the negative effects of marital conflict in mother-father families. Model 3, "Mutual Support," suggests that co-residence is an adaptive response to scarce resources, and that mother's and grandmother's mutual support have positive effects on both individuals' parenting quality. Finally, Model 4, "Burden on Grandmother," hypothesizes that co-residence is difficult for the grandmother and drains her resources. Grandmother's parenting would be negatively affected, while mother's parenting would be positively or neutrally affected.

To test these competing hypotheses, we developed OLS regression models of "predictors of parenting." For example, we tested the impact of grandmother's co-residence on mother's supportive presence, controlling for important background variables: mother's age at first birth, and both women's level of education, PPVT scores, marital status, and AFDC participation. We found that mother's PPVT score and grandmother's level of education and lack of welfare history are positively related to mother's supportive presence. In contrast, the variable -- grandmother and mother living together -- has negative effects on mother's parenting quality (-0.76, $p<.05$).

We repeated the above regression model with each of the nine major affect and parenting measures as dependent variables, separately for mothers' and grandmothers' parenting. The results show the effects of grandmothers' co-residence on mothers' and grandmothers' parenting: grandmother co-residence has negative effects on the majority of parenting variables of both

mothers and grandmothers. Models with positive types of parenting as the dependent variable, such as quality of assistance, supportive presence, authoritative, have negative coefficients representing the impact of grandmothers' presence; models with problematic types of parenting, such as disengaged, have positive coefficients. We thus conclude from these analyses, that Model 2, "Conflict," from our heuristic table conceptualizing co-residence effects, best represents the data.

What are the implications of co-residence and quality of parenting for children's behavior? Do mothers' and grandmothers' parenting operate independently, in concert, or in interaction? To answer these questions, the means and standard deviations of the major outcome variables of interest were calculated: negative affect and anger to mother, and negative affect and anger to grandmother. (Negative affect and anger is each coded on 5-point scales and summed with 1=virtually no negative affect; 5=persistent and extreme.) While the Puzzle Task challenges children, it is not highly stressful. Thus, anger and negative affect are fairly unusual in this task, and their occurrence suggests problem behavior. The mean levels of negative affect and anger are low, and children respond similarly to mothers and grandmother figures (x=1.79 (SD 1.00) and x=1.78 (SD 0.97), respectively, for mothers and grandmothers living together; x=1.81 (SD 0.95) and x=1.44 (SD 0.70), respectively, for mothers and grandmothers not living together).

To test the relative effects of mothers' and grandmothers' parenting quality on children's problem behavior, we developed OLS regression models, with both mothers' and grandmothers' parenting entered into the equation as main effects, controlling for the following background variables for both mother and grandmother: level of education and AFDC history. We also controlled for mothers' age at first birth, grandmothers' age at interview, grandmother's co-residence, and child gender. So, for example, with child's negative affect and anger to mother as the dependent variable, mother's negative affect and grandmother's negative affect were entered into the equation, controlling for background factors. We can thus look to see if mother's or grandmother's or both individuals' negative affect are related to child outcome. The general picture is that the quality of affects and parenting of both mother and grandmother is related to childre:.s problem behavior. There seems to be slightly more influence on the part of mothers than of grandmothers. Three interaction terms are significant, suggesting that the combination of mother's and grandmother's parenting is important. Indeed, when children experience high negative affect from both mothers and grandmothers, their problem behavior toward mother is the highest. Similarly, high levels of authoritarian and permissive parenting from both mother and grandmother are related to elevated levels of children's problem behavior. Interestingly, the significant interactions occurred primarily for children's behavior toward mother, with only one trend representing an interaction effect on children's behavior toward grandmother. Figure 1 illustrates the interaction effects.

Figure 1. INTERACTION EFFECTS FOR MOTHERS' AND GRANDMOTHERS' PARENTING: MEAN DIFFERENCES IN CHILDREN'S PROBLEM BEHAVIOR.

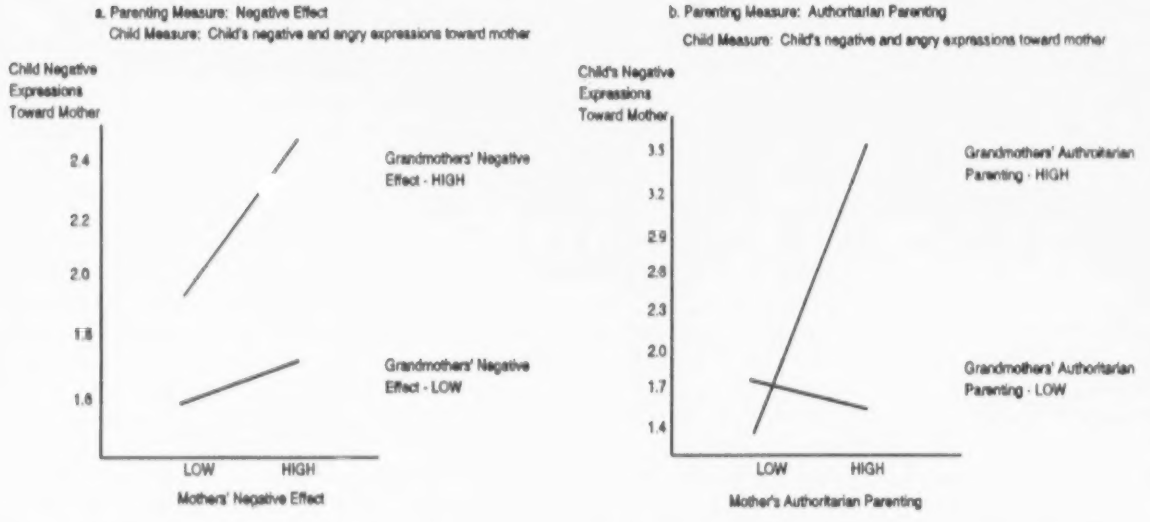
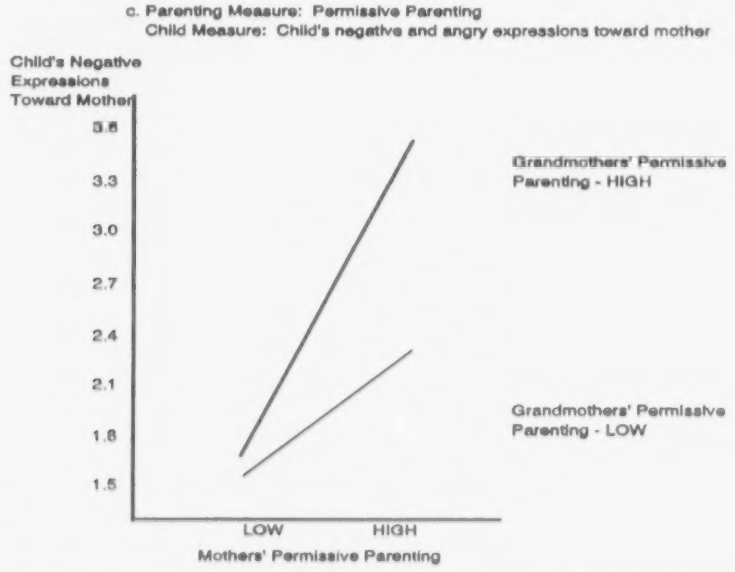


Figure 1c on following page

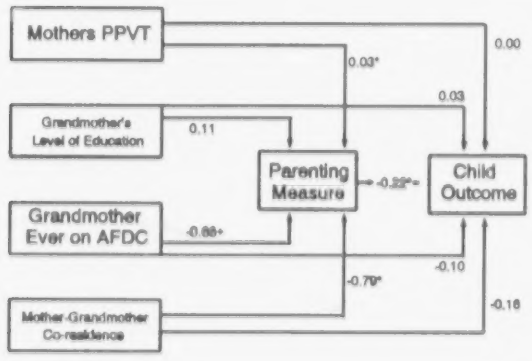
Figure 1. (continued)



In the OLS models developed to test the effects of mothers' and grandmothers' parenting on children's problem behavior, very few of the background factors had a direct effect. These findings, in concert with the earlier results from the "predictors of parenting" regression models, confirmed our perspective that parenting in these multigenerational families may serve as a mediating variable for the effects of background factors on children. To test this perspective, we developed a series of path models, where, on the left, are the background variables (PPVT, education levels, AFDC participation, marital status, and, of greatest interest, co-residence with the grandmother). In the center is parenting quality, and to the right is child behavior as outcome.

As can be illustrated in figure 2, we hypothesized direct effects of the background variables on quality of parenting, direct effects of parenting on child outcome, and indirect effects of the background variables through parenting on children's behavior. This is indeed the case.

Figure 2. PATH MODEL A. CHILD OUTCOME: CHILD'S NEGATIVE ANGRY EXPRESSIONS TO MOTHER
PARENTING MEASURE: MOTHER'S SUPPORTIVE PRESENCE



DIRECT EFFECTS:

	Dependent Variable: Parenting Measure	Dependent Variable: Child Outcome
Mother's PPVT	0.03**	0.00
Grandmother's Education	0.11	0.03
Grandmother Ever on AFDC	-0.66+	-0.10
Mother-Grandmother Co-residence	-0.79*	-0.16
Parenting Measure		-.022

INDIRECT EFFECTS:

	Dependent Variable: Child Outcome
Mother's PPVT	-0.01*
Grandmother's Education	-0.02
Grandmother Ever on AFDC	0.15*
Mother-Grandmother	0.18*

+ $p < .10$ * $p < .05$ ** $p < .01$

For example, in figure 2, mother's PPVT score, grandmothers' AFDC history, and grandmother co-residence all have direct effects on mother's supportive presence. Mothers' supportive presence itself has a direct effect on children's negative affect and anger to mother. In addition, mothers' PPVT, grandmothers' education, and co-residence all exert indirect effects on children's behavior through parenting. A similar pattern was observed for the role of mothers' supportive presence on children's problem behavior with grandmothers.

However, once background factors and indirect effects are taken into account, grandmothers' supportive presence do not have a direct or an indirect effect on children's problem behavior, either to mothers or to grandmothers. (We have presented path models only for supportive presence; these same patterns hold for the majority of other parenting variables as well.)

DISCUSSION: What may we conclude about the impacts of multigenerational parenting and, in particular, the role of grandmothers in the lives of these children? First, as has been evident in a number of the analyses presented here, co-residence with the grandmother appears to have negative effects on the quality of mothers' and grandmothers' parenting. From the path models, we can see that co-residence also has an indirect effect on children's problem behavior through mothers' parenting. In other words, grandmother co-residence reduces the quality of mothers' parenting, which in turn results in higher levels of negative affect and anger toward mothers and grandmothers. Second, grandmothers' background variables also influence mothers' parenting. Grandmothers' level of education and history of AFDC relate to mothers' quality of parenting, but not vice versa.

Third, the combination of high levels of certain types of parenting on the part of grandmothers and mothers has multiplicative effects on child outcome. Thus, when grandmothers' and mothers' negative affect, authoritarian, and permissive parenting are both high, children experience more intensely negative consequences. These interaction effects have occurred for problematic styles of parenting, but not for positive aspects of parenting.

In conclusion, we would argue that our research is consonant with the other papers in this symposium today, indicating that there are considerable strains involved in multigenerational households brought about by early mothering and early grandmothering. Grandmother figures in multigenerational families face difficult economic circumstances, and are balancing the demands of adult mid-life with new responsibilities to co-parent the next generation of children. In Burton's research, the grandmothers eloquently speak on their own behalf regarding the stresses of their lives. Baydar and Brooks-Gunn have shown today that providing care to grandchildren is negatively associated with grandmothers' reports of life satisfaction.

Our research sheds insights into the possible mechanisms for these negative effects. The quality of parenting appears to be the major mechanism. In correlation analyses not reported here, grandmother co-residence is not related to background variables, such as education, PPVT, employment, or AFDC history, minimizing the possibility that grandmother co-residence is reflecting some unmeasured background characteristic of this set of families. Instead, our findings suggest that co-residence is related to problematic family processes. Living with one's mother appears difficult, and sharing childrearing with her on a daily basis is stressful. In the next phase of our work, we plan to test these hypotheses directly by examining the emotional quality of the mother-grandmother relationship as well as the dynamics of the family as a whole.

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Discussion *Urie Bronfenbrenner*

My remarks will provide a framework of generalizations that emerge from the work that you have seen in this new, evolving ecology in our time: grandmothers having a major significant role in the rearing of the young. The papers that you have heard, and the research trajectories which they represent into the future, have significance not only for this particular issue of a newly evolving family form in our society, but more broadly for an understanding of developmental processes and outcomes generally. In addition, there are implications for Head Start programs and the way they can operate more effectively in the future.

The first point I want to make has been illustrated in practically every one of the presentations: there are contrasting ecologies that are emerging in society -- new family forms. Not only new family forms, but in new family contexts. That becomes a very vital point, because the same structure does not have the same consequences in different, broader contexts. As we have seen here, it relates to work and it relates to poverty. I will suggest this afternoon that there are other key contrasts. Our first task is to discover what these ecologies are in today's world for children and families in the United States. Moreover, I will argue this afternoon that there are certain lawful generalizations that can be drawn from these about the nature of development and the forces shaping it, which have implications for the design and operation of programs to sustain and further development.

These overriding generalizations are particularly prominent and particularly powerful with respect to process. What actually happens between the child and that environment, particularly between the child and the other people in it who are responsible for and engaged in the care of the child? The highest coefficient that you saw here was precisely for the influence of the process on the outcome. That coefficient is a substantial underestimate of the reality, because -- and here we have an interesting contrast - in the earlier presentations we had the effects of context without process, and in the final one we had the effects of process, but without context. We did not see whether this process varied systematically in the different ecologies in which it is now taking place. This afternoon I will be discussing the process in terms of how it operates and varies substantially in degree, effectiveness, and efficiency. In fact, they can even vary in direction.

There are other generalizations that emerge from the kind of research that we are moving toward -- what I have called a process-person-context-model over time. We are looking at processes that account for most of the variance. Their capacity to account for the greater or lesser variance depends on the characteristics of the children and the characteristics of the environment. So you cannot leave one out and say, "I am going to work on process because that is where the action is." You miss the boat that way.

What about Head Start in that connection? Well, it is clear that Head Start has not been able in its research, as yet, to talk about and get a handle on what the processes are that happen in centers. Yet that is where the variance is accounted for, and that is why we are underestimating the effects of Head Start. Because we are looking at the total results. Some of the processes may be backward, some forward. Some are very powerful, clearly, because there are powerful effects. But what are they? What is doing it? Moreover, we know that what happens in Head Start affects parental processes. And we have not looked at how the experience in the center ricochets back on the caregivers -- mothers, grandfathers, others who are involved in a community setting with children. So that is adding to the picture, but only in certain kinds of conditions.

This leads me to my last remark, which is what I am going to document convincingly this afternoon. I am going to argue that our use of and preoccupation with statistical significance and the avoidance of type 1 errors (saying something is so and it is not) has been the principal block to our progress in scientific understanding and in programs for children, primarily because most of those models assume additive events, like these past models.

When you control for context, you are removing not just the context but the process as well, because development is a synergistic process. Things get multiplied, and if you take them out of context you are missing the multipliers and the dividers. So the way to handle this kind of situation is an old-fashioned one, which I was trained in. But then computers sort of took over.

You cannot control for gender. Above all, you cannot control for age of mother. If you are trying to control statistically a situation in which you have a teenage mother with her own mother in the situation, you are going to control for her age with a statistic. There is actually a very important statistical reason why we should not use those controls; they are applicable only under the assumption of what is called homogeneity of regression. Which, in English, means that these variables have the same effect, irrespective of the context or the characteristics of the person involved. And they never do. And so what you do with that is that you are distorting the observation.

Look separately at what is happening. Why should I get very small samples? Well, you had better do it because otherwise you are going to generalize and say, "this thing is good." And it turns out that it works only for girls, or that it is working tremendously for middle-class children, but does not work at all for lower-class children, because it is inappropriate. You never see that because you controlled it out, which means you do not even know that it is not there. Or you know it is there, what you have called up is the average effect for everybody, but there may be nobody at that average. People may be scattered all around it and balancing each other off.

So the implications for Head Start are: we need to understand these processes and where they work and for whom they work -- and that is our major challenge. And we have to take into account that the contexts that we are dealing with now are not the contexts that we had then. And some of the things that we had will not work now, not because the principles are wrong, but because we are not applying the principles because we do not recognize that we are dealing with a different world in which children are at new and different kinds of risks with new and different kinds of resources and opportunities that did not exist before. Those are what we need to build on. That is what we built on when we built Head Start in the first place. We built on the resources we saw that existed at that time. Some of those resources are now gone. New kinds of resources are present. I am looking at the new capabilities of mothers in the world of work. And that is a resource for children. Most of the important disabling effects of work on family come from the father's workplace, not the mother's.

AUDIENCE DISCUSSION

Paikoff was asked to expand of several characteristics of grandparents who become caregivers. Specifically, one question concerned the issue of proximity by ethnic breakdown, and another question was why grandparents in married couple households are more likely to provide care. Although there were no data about the first question, the presenter felt that this is probably an important issue because of those grandparents living close, almost all are providing care. In answer to the second question, the presenter postulated that single grandmothers are more likely to be working. In couple households, however, grandmothers may have more time because two people share chores, household concerns, and perhaps bring in money. The variable of grandmother's age was also touched on as a factor in caregiving. Younger grandmothers are less likely to care for grandchildren -- possibly because they too are working.

Chase-Lansdale was questioned about the findings presented regarding authoritarian parenting as they relate to some earlier studies. These studies show that this style of parenting helped prepare Black girls, but not boys, to function more effectively outside the home. Although the study reported here used the same definitions of authoritarian parenting and adaptations of the same measures, the same positive effects were not found -- indeed, negative effects were found. The presenter, however, did speculate that this might change if these children were followed as they went through elementary school. Perhaps, she added, authoritarian parenting might better prepare these children to deal with the challenges of school. The discussant cautioned against giving too much weight to these earlier findings. The work was done in Germany and not in the United States. Recent work has shown that the earlier concepts and measures cited are not applicable to different ethnic groups in this country, specifically Asians. In addition, effects of types of child rearing tend to change markedly over time, as a function of their historical period. The context of parenting is very important and often dictates the strategies parents both use and teach their children.

Another question was raised about the effect of intermittent support from fathers. The questioner speculated that this arrangement would cause more conflict than the grandmother/mother co-resident relationship. Data on intermittent support from fathers were not available in this study, but Chase-Lansdale commented that this might be similar to the relationships in step families where rules for co-parenting are not as clear-cut as in a mother/father family with both present all the time. Bronfenbrenner added that step families have been shown to present a greater developmental risk factor than even single-parent families. He feels that this is a result of process -- someone leaving, a new person entering -- and we need to understand more about this process.

Panel 103 FACILITATED COGNITIVE AND SOCIOEMOTIONAL DEVELOPMENT: THEORIES OF VYGOTSKY AND FEUERSTEIN

Chair: **Carol Seefeldt**; *Discussant:* **John W. Hagen**

The Mediated Learning Experiences Rating Scale: Development of the Instrument and Application to Parent-Child Interaction Research *Carol S. Lidz*

Feuerstein's concept of Mediated Learning Experience (MLE) is useful to help us understand several things relevant to working with young children and their families. First, MLE, in summarizing important experiential contributions to cognitive development, operationalizes the concept of "disadvantaged."

Second, MLE provides a framework for analyzing interactions of primary mediators of the child's experiences to allow evaluation of the contribution of these mediations to the child's socio-affective-cognitive environment. And, third, MLE has the potential to provide guidelines for interventions that show promise of optimizing these mediating experiences, and, thereby, the child's development. In this presentation, I will first summarize Feuerstein's conceptualization of MLE. I will then briefly discuss each of the above-mentioned contributions, highlighting the MLE Rating Scale and its relationship to these contributions.

Feuerstein(1979; 1980) uses and expands the Vygotsky-based idea of mediated learning experience to summarize the components of social experience that affect the cognitive development of children. While factors such as illness, poverty, and neurological status may be associated with lowered cognitive development, Feuerstein does not see these factors as directly causative of cognitive functioning. Rather, in Feuerstein's view, factors such as poverty impinge on the child's cognitive functioning to the extent that they affect the mediational experiences available to the child, that is, to the extent that they either reduce the ability of the adults to provide good mediation or interfere with the child's ability to receive mediation. Thus, the proximal, or causative, influences relating to development of optimal cognitive functioning would be the presence or lack of mediational experiences. (Please note that MLE theory does not deny a genetic contribution or the relevance of direct experiences to cognitive functioning.)

Similarly, when we speak of some children or families as being "disadvantaged," it is doubtful that any of us attributes this disadvantage solely to the presence of certain material goods or to the quantity or quality of food or clothing. While there is no intent here to diminish the need for stable, safe, clean housing and nutrition, I suspect that what we really mean when we use the term "disadvantaged" has more to do with the consequences of these difficult conditions for the experiences of children and families. While it may be necessary to have good food, a nice home, and a variety of toys, it is not sufficient if we seriously seek to optimize the

conditions for cognitive and social-affective growth of children. We then need to turn our attention to determining the precise types of experiences that do promote such growth. Feuerstein's conceptualization of MLE offers a very fruitful direction for delineation of the specific components of experience that show promise of developing more capable learners. Most importantly, the relationship between most of these components and child development are well documented in both the parent-child interaction and "best practices" teaching literature (e.g., Lidz, 1991).

There are, to date, 12 components that have been included in discussions of MLE. With some modification and adaptation, these have all been incorporated into the MLE Rating Scale under the following labels: Intentionality, Meaning, Transcendence, Task Regulation, Praise/Encouragement, Sharing of Experiences, Sharing/Joint Regard, Change, Challenge, Psychological Differentiation, Self-Regulation, and Goal-Directedness/Planning. The MLE Scale removes the last two as separate components and subsumes them under other components. The MLE Scale also adds two components to Feuerstein's original, based on research literature review; these include affective involvement and contingent responsivity. Finally, the scale includes Feuerstein's component of reciprocity, but scores this separately as a behavior of the child, in contrast to the other components that describe the behaviors of the mediator. I realize that this is mere jargon to those of you who are not familiar with Feuerstein's work. In the brief time available for this presentation, it will not be possible to give a definition and elaboration regarding these components. I would be glad to provide more expanded information to those of you who request it.

The assumption, or hypothesis, is that if these components are present in the interactions of the primary mediators and are "received" by the child, the child's cognitive functioning will be not only facilitated, but, specifically, the child, as learner, will be characterized as active and self-regulated, with the capacity for representational thinking.

If we could analyze and profile the mediational behaviors of the primary adults in the lives of young children, it might then be possible to intervene in a way that would directly affect the children's cognitive development. This is precisely the objective of the MLE Rating Scale, which is designed to reflect the components described by Feuerstein and represented in the parent-child interaction research literature. The MLE Rating Scale incorporates 12 components of adult-child interaction that have been hypothesized, and in many cases demonstrated, to relate to the cognitive development of young children. The scale is designed to describe the mediational behaviors of adults during the course of either dyadic or group interactions with children. The scale has been used with children 1 1/2 through 5 years of age.

When used for diagnostic or research purposes with parent-child dyads, the parent is requested to interact with the child in one to three types of 10-minute situations. These always include free play with a standard set of age-appropriate toys, such as puzzles, crayons and paper, and a construction toy. Additional observations can include a structured teaching situation, where the parent is provided with legos and asked to "teach your child to build a house with these legos." Finally, it is often interesting to add a third situation, where the parent is asked to read a story to the child. When used with teachers, the teacher is observed during any representative instructional sequence with an individual or small or large group. When used with assessors, the scale would be relevant when the assessor is engaged in the model called "dynamic assessment" -- a test-intervene-retest approach, where the "intervene" segment would be mediational in nature.

In any of these cases, the entire interaction is observed, and then rated on each component on a 0-3-point scale. Zero always indicates "not in evidence." The highest rating of 3 describes a level of occurrence that would accomplish any of the three objectives of optimal mediation; namely, the promotion of active learning, self-regulation, and representational thinking. The entire 12-component scale is an operationalization of my interpretation of a mediated learning experience. If more than one interaction sequence is observed, scores can then be aggregated to produce a more reliable and comprehensive sample of the mediator's behavior. What emerges, then, is a profile of strengths and weaknesses of the mediation that can then be used as feedback to guide intervention. The objective of the intervention would be to further optimize the adult's ability to provide a mediated learning experience, with the goal of facilitating the child's cognitive functioning.

We already have a number of sources for diagnosis of children to determine areas of need that serve as targets for intervention. However, the question often remains as to just how this intervention should take place. Furthermore, there is thus far very little to inform us regarding the ecological contributors to the child's functioning. It is these gaps that the MLE Rating Scale addresses. If we are interested in promoting an "optimal match" between the child and her learning experiences, we must include factors beyond descriptors of the child's functioning to the variety of contexts in which the child functions. Instruments such as the MLE Rating Scale allow us to describe in a meaningful way some of the contributions of adult participants within contexts impinging upon the child.

I will close with a brief overview of research that has been completed and of research that is currently planned or in process. The first study, completed by Barbara Glazier-Robinson (1986), explored the relationship between mediated learning experience, as measured by the scale, and academic achievement of a group of Head Start children. While a significant relationship between these two variables was not demonstrated, it was shown that IQ was no better a predictor of achievement than MLE, and that MLE did add to IQ in predicting achievement. More importantly, this study was the first to demonstrate high levels of interrater reliability and intratest consistency of the scale. In a second study, Glazier-Robinson(1990) looked at the ability of a different group of Head Start parents to enhance their mediational skills. This study documented a highly significant difference in the parents' pre and post-training ratings on the MLE Scale, suggesting that the parents were able to understand the concepts of mediation presented to them and

incorporate these in their behaviors during the course of their play interactions with their preschool children. The third study with the scale was completed by me, in collaboration with Lori Bond and Lisa Dissinger (1991). This study investigated intersituational consistency of the mothers' interactions across three situations. In this case, the mothers were white and highly educated; the children were from private nursery schools and day care centers, with ages ranging from 2 through 5 years. The study documented a moderate degree of consistency that varied somewhat with the component and provided further evidence of interrater reliability and intratest consistency.

There are now five more studies in varying states of planning and completion. While data remain unavailable regarding any of these, the nature of the studies may be of interest to you. I have just completed two pilot studies with some of my students. In one, we used the scale as one pre/post measure in an intervention study with a small group of "at-risk" parents. The parents were videotaped and provided with feedback on their interactions with their children. They were also shown segments of their videotapes. They were worked with over a period of three months to try to improve their interactions, and then retaped and rescored on the MLE Scale. In this study, we are also interested in looking at the effects of parent mediational behavior on child variables. A second study involves a group of three studies, using the MLE Scale as a teacher consultation tool within an early intervention setting. Data were collected regarding both teacher and child change, and teachers were observed and rated on their interactions with one child on one academic objective. Although the data are not fully in, the impression is that teacher changes in terms of MLE ratings are clear, whereas child changes vary. There are also three dissertations utilizing the scale. Two students in Puerto Rico will be using the scale with the island population. One will be looking at the relative contributions of mothers' and fathers' mediation to the child's preschool functioning. Stateside, I have a student who will be investigating the interaction between the child's temperament and the parents' MLE in relation to the child's cognitive development; this will be with a highly "at-risk" population in terms of child's history of ICU and risk factors.

Obviously, the possibilities for research are endless. More important are the possibilities for application to our diagnostic, intervention, and educational practices with children and parents. Since my introduction to MLE and related concepts, my practices as a psychologist have dramatically changed. For example, I now very frequently include observations of parent-child interactions in my assessment repertory, and always use my internalized understanding of MLE in observing and analyzing the contributions of the classroom situation to the referred child's functioning. Most importantly, I now feel I have a contribution to make in the recommendations that derive from these observations. For educators, MLE has direct implications for curricula and for teaching behaviors in general. The feedback we get from teachers who are exposed to this concept is very positive in terms of providing them with a very specific means of analyzing and improving their performance in a relatively nonthreatening way.

While this presentation has been able to provide only a glimpse into the description and applications of Mediated Learning Experience, you will have the opportunity to solidify these initial impressions with the information provided by our next two presenters. In addition, full elaboration of the Scale appears in a book by Guilford Press (Lidz, 1991). MLE concepts have been incorporated into two curricula for young children. One you will hear about today from Katherine Greenberg. Information regarding another designed for preschool children is available from Carl Haywood at Vanderbilt University's Kennedy Center.

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Mediating Learning Experiences: An Early Intervention Approach that Facilitates the Cognitive and Socioemotional Development of Preschool Children

Ruth Kahn, Bruce Bernstein, Mark A. Greenstein

Dramatic changes in the conceptualization of state-of-the art practices for early intervention, from a child-centered to a family-centered paradigm and legislation (P.L. 99-457, part H, and P.L.101-476) that have supported this paradigmatic shift, have resulted in the need for new models for clinical service delivery and training of personnel (McCollum & McCartan, 1988; McCollum & Thorp, 1988). Head Start professionals have long been aware that involving families in determining their own needs and the needs of their children and involving them in the planning and implementation of the intervention services results in broader treatment goals that place new demands on service providers. In the field of early-intervention service these demands are further complicated by regulations that require providers to offer case-management services and to function as team members, rather than specialists. These new roles necessitate a reconceptualization of the delivery and implementation of early-intervention services and the theories and competencies that providers must master. The Brighter Beginnings mediated learning experiences early-intervention model has successfully implemented and evaluated an innovative, theoretically based, family-centered early-intervention model, and has

developed an instrument, the Mediated Learning Experiences Record (MLER), for systematically observing and documenting changes in parents' mediation of their infants and toddler's learning experiences. This model program was designed to enable service providers to offer more comprehensive home- and center-based early intervention that maximizes developmental outcomes for infants and toddlers and enhances the ability of families, regardless of their cultural affiliations, to support and facilitate their young children's success in preschool programs. The model could be effectively implemented within the context of an expanded Head Start initiative. The format of the Brighter Beginnings service delivery model,the selection of intervention goals, and the intervention activities that are planned reflect the theories and applied work of Vygotsky (1962, 1978, 1987), Feuerstein (1979, 1980), and Greenspan (1981,1989). The theoretical framework that has evolved is culturally sensitive and compatible with current research on parent/infant interaction (Kaye, 1982; Klein, 1988; Sameroff & Emde, 1989; Stern, 1985; Tronick & Gianino, 1986), models of the transactional influences on development (Bronfenbrenner, 1979; Ogbu, 1987; Rogoff & Wertsch, 1984; Sameroff & Chandler, 1975), criteria for state-of-the-art practices (Bricker, 1989; Bromwich,1981; Meisels & Shonkoff, 1990), and the requirements of federal legislation in the United States. As part of his theory of how different aspects of development and formal education are interdependent and interrelated and how they transformed one another, Vygotsky (1978, 1987) introduced the construct of a "zone of proximal development" (ZPD). The ZPD is evident when the child, who could not perform a task or skills when scaffolding was not available, is able to perform when a more knowledgeable other provides some enabling actions and/or guidance. Although he does not directly refer to the ZPD, Feuerstein's theory of structural cognitive modifiability (SCM) and of MLE and his Learning Potential Assessment Device (LPAD) are predicated on the assumption that the ZPD exists. Mediation by a more knowledgeable other involves the mediator in facilitating or enhancing the child's current actions and promoting more complex levels of comprehension and performance than the child is currently demonstrating, thereby accessing the ZPD. For Vygotsky and Feuerstein, the ZPD is the area of development in which true learning occurs. The child is enabled to move beyond the ZPD because of mediation. The Brighter Beginnings family-centered early- intervention model needed a theoretical component that specifically addressed the socioemotional development of infants and toddlers and their relationships with the primary caregiver(s) who are their major source of mediation. The developmental-structuralist theory outlined by Stanley Greenspan (1981, 1989) provided the additional theoretical underpinnings that were needed. Greenspan delineated the stages of infants' socioemotional development from a vantage point that integrated theories of psychodynamics with Piagetian perspectives on the cognitive development of infants and toddlers. His theoretical and clinical work has focused on the social and emotional development of infants and toddlers within the context of the relationship with their primary caregiver(s), and on the importance of the match between families' perspectives of their needs and interventionists' willingness to stretch the boundaries of their role so they can meet those needs. The integration of the work of Vygotsky, Feuerstein, and Greenspan made it possible to create a viable process-oriented family-centered early-intervention model program that utilized the mediation of learning experiences as the major thrust of the intervention for infant/ toddlers and their families. The Brighter Beginnings home- and center-based demonstration model is the only 0-3 intervention model that we are aware of in the United States that has systematically based its intervention approach on the theoretical work of Vygotsky and Feuerstein. Brighter Beginnings involves the use of MLE on two levels to achieve different but related goals. The mediation of infants' and toddlers' learning experiences are primarily implemented by their parent(s) and/or surrogate caregiver(s), who are coached and instructed by early interventionists during weekly home visits. Reliance on the parents as the primary intervention agents,eventually empowers them to use the problem-solving skills they are encouraged to develop to accomplish their own agendas and ensures that the parents mediate in keeping with their own cultural values. The primary goals of this aspect of the intervention are to facilitate and enhance the cognitive, language, and socioemotional development of infants and toddlers, and to strengthen and enhance parent/infant attachment and interactions. In the context of establishing goals for the improvement of the functioning of the family and the development of the infant, and while generating plans for attaining those goals, the interventionists act as mediators for the parents. In this way the parents become aware of the benefits of mediation and have many opportunities to observe and internalize mediational strategies. Mediation with parents is facilitated by procedures and processes that are used in conjunction with developing their individualized family service plan (IFSP). The setting of goals, using the Goal Attainment Scale (Simeonsson, 1986), and the development of plans for accomplishing those goals provide the context in which interventionists mediate "meaning, transcendence, competence, and regulation of behavior" for the parent (Kahn, 1991). To establish the importance of the meaning of the goal from a cultural and personal vantage point, parents rate the targeted goal from their own perspective as "essential," "very important," or just "important," and are encouraged to reject goals they do not wish to address. Brighter Beginnings has been successfully implemented with a heterogeneous group of 26 families from the time of the birth of their disabled, vulnerable, or typically functioning infants until these young children were transitioned into preschool programs (Mahoney, 1987, 1989; Kahn, 1991). In addition to the analysis of the parent/infant interaction data, norm-referenced and criterion-referenced developmental tests, needs-assessment surveys, goal attainment scaling data, process notes documenting the intervention activities, parent satisfaction questionnaires, an attachment Q-sort, the I nstrument, and exit interviews were used to provide quantitative and qualitative data for the FDRC's program evaluation and research studies. Only highlights of the data collected on parent/child MLE interactions and program evaluation will be reviewed here. Twenty-six percent of the families served were single-parent, maternally headed households. Almost half the families had additional children. Twenty-one percent of the families were African-Americans and 16% were Hispanic. A third of the families had poverty-level incomes and were receiving state welfare assistance. Thirteen percent of the mothers and 26% of the fathers had not completed high school. At discharge from

the hospital, 21% of the children were diagnosed as disabled and/or delayed, 42% were diagnosed as significantly vulnerable for subsequent developmental delays, and 37% were considered typically functioning infants about whom there were no developmental concerns.

The evaluation of the effectiveness of this approach necessitated the development of new theoretical constructs that had clinical and research implications, operationalization of the new and existing constructs, and instrumentation (the MLER) for systematically observing and documenting changes in parent and child behaviors during mediated learning interactions. The MLER observation instrument was used by five trained coders to code and analyze data from 19 families, who participated in the program for at least two and one-half years. A total of 1,538 MLE episodes were identified and classified in terms of their form, function, types of mediational strategies that were used, and areas of knowledge that constituted the dyads' shared focus. These new operationalized theoretical constructs were reliably coded and significantly related to certain aspects of parent's mediational behaviors (see Kahn, 1991, for a complete description).

Mothers' and fathers' patterns of mediation are generally similar. As would be expected, the mothers, having received more of the direct intervention, tend to implement and vary MLE strategies somewhat more than fathers. Data from videotaped interactions support clinical observations, parent's own reports of changes in their mediating behaviors over time, and the achievement of the programs' goals. The percent of total interaction time that parents spent in MLE episodes increased considerably over time, from a mean of 39.5% at 4 months to a mean of 87.5% at 3 years of age. While this is in part attributable to the age-related developmental changes in the children, the fact that there were no significant differences in the percent of time spent in MLE episodes that could be attributed to the children's developmental status supports parents' views that the intervention had an impact on parents regardless of the interactive competencies of their infants or toddlers. In terms of form, between 4 months and 3 years the frequencies and percent of "regular" and "embedded" MLE increased from 150 (60%) to 377 (80%) and 3 (1%) to 32 (7%), respectively. The percent of MLE episodes that were "aborted" (i.e., ended because the child did not reciprocate) decreased substantially, from 99 (39%) to 61 (13%), a finding that suggests that one of the major goals of the intervention model was accomplished. The results of analysis of occurrences of functions of mediation during MLE episodes indicated that the mediating "meaning" remained high throughout the three-year period, ranging from a mean of 98% at 4 months to a mean of 95.5% at 3 years. The mean percentages for mediation of "transcendence", increased steadily during mother/child interactions, from 22% to 34%, but more erratically during father/child interactions (4 mo.= 21%, 1 yr.= 18%, two yrs.= 20%, 3 yrs.= 36%). The mediation of "feelings of competence" increased for mothers from a mean of 23% to a mean of 41%. For fathers, the increase was somewhat smaller (23% to 33%). "Regulation of behavior" remained fairly constant for mothers (mean range 60% to 62%). Fathers' mediation of "regulation of behavior" increased dramatically from a mean of 33% at four months to a mean of 52% when children were 1 year old, and then leveled off to a mean of 61% at 3 years. The occurrence of mediational strategies within MLE episodes were coded as "adapting/enabling," " cognitively oriented," and/or "affectively oriented." There continued to be marked variations in the mean percentages of parent MLE strategies that were "adapting/enabling" and/or "affectively oriented"; however, by the time the children were 3 years old the mean percentages of MLE episodes during which parents used "cognitively oriented" strategies were very similar, regardless of the level of disability of the child (means with disabled=91%, at risk=98%, typically functioning=95%). The mean percentages of MLE episodes during which "cognitively oriented" mediating strategies were used by 3-year-old children were very similar, regardless of their developmental status (disabled=93%, at risk=94%, typically functioning=94%), and were very similar to the patterns their parents' demonstrated. The content of the shared focus of each MLE episode was coded as involving "socioemotional knowledge," "physical knowledge," and/or "operational knowledge" (Kamii, 1971). In keeping with Piagetian theory, occurrences of different areas of knowledge were associated with the age and developmental status of children during the parent/infant MLE episodes. All dyads consistently focused most on "physical knowledge" as their topic of conversation and activity, with a mean occurrence of 20%. "Socioemotional knowledge" was shared most with 4-month-old infants (47%), and then declined over time (means for 1 yr.= 15%, 2 yr.= 14%, 3 yr.= 18%). "Operational knowledge" was shared least, but increased steadily as children became older and more competent (4 mo.=3%, 1 yr.= 8%, 2 yr.=15%, 3 yr.=20%).

Children initiated MLE episodes somewhat more when they interacted with their mothers (mean=36%) than with their fathers (mean=32%). They terminated MLE episodes less when they had initiated them (mean=25%). When parents initiated MLE episodes, children, on the average, terminated 32.5% of the episodes. Documentation of the intervention activities, through the coding of process notes, provided strong support that the family-centered and theoretically oriented aspects of the model had been implemented. More than half the activities engaged in during home visits were activities during which interventionists mediated with the parent (54% in year one, 61.5% in year two, and 59.7% in year three). Activities that involved the interventionists in mediating directly with the child were engaged in far less frequently in an effort to promote mediation by parents. In year one, 17% of the activities engaged in during home visits involved interventionists in directly mediating for the child. In years two and three, the interventionists' levels of mediation with the child were not significantly different (13.4% and 16%, respectively).

In keeping with the parent-empowerment goals and philosophy of this model, parents had considerable impact on the goals that were targeted for their IFSP. Out of the 323 goals that were planned, 44% were generated solely by parents. Another 19% of the goals were collaboratively determined by the parents and interventionists. Parents agreed to an additional 37% of the IFSP goals that were initiated by the interventionists. Of the goals that were planned and implemented, 81% were achieved. Only 6% of the planned

goals had to be deleted because they proved inappropriate for the child or family. An analysis of parents' priorities for goals indicated that parents were far more likely to rate goals as "essential" if they had initiated the goals. They rated 52% of the 142 goals they had generated as essential. In contrast, only 22% of the 120 goals that were generated by parent/interventionist collaboration, and 22% of the 60 goals initiated by the interventionist, were rated as essential. Parents' satisfaction with the program was high and closely matched the goals of the intervention approach. When the specific benefits of the program were under consideration, parents agreed that they had increased their understanding about development in various domains (mean=93%, range 83% to 100%). Parents generally agreed that their participation had helped them adapt to, cope with, and advocate for their children's needs (mean=92%, range 78% to 100%). They also agreed that their children had improved as a result of their participation in the program (mean= 90%, range 78% to 100%). During the exit interview and in their comments on the Parent Satisfaction Questionnaire, the majority of parents indicated that they felt the program should be continued until their children had completed preschool. Most of the parents felt that they had gained confidence in their parenting skills by having professionals available whom they could consult with and learn from. Although further validation of the efficacy of the Brighter Beginnings MLE early-intervention approach must await its replication with a larger sample and comparisons to a control group that has not participated in an MLE intervention program, the results to date demonstrate that this early-intervention approach has potential as a model for extending Head Start programs so that they could have a positive impact on children and families from the time of the birth of those children until they are ready to enter school.

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Measuring Adult/Child Group Interaction to Determine Effects of Cognitive Intervention: An Innovative Approach

Katherine H. Greenberg, Marianne Woodside

Throughout the history of Head Start, researchers have reached conclusions such as the following (Collins, 1984):

> The brutal fact is that many of the most important topics that mediate quality early childhood education have not been central to Head Start's research and evaluation agenda over the years. Few well designed studies have examined such crucial topics as the impact of parent involvement on child learning, classroom composition, teacher training, teaching strategies, curriculum and continuity of intervention over time.

Although this quote was taken from a review of literature by Collins in 1984, such conclusions remain with us today. In a recent article in Science (Holden, 1990), Wade Horn was reported as stating that we may not have been asking the right questions as we evaluated Head Start in the past. Of particular interest to our research group is the edict that one must measure the process of intervention, such as adult/child interactions, in order to clearly determine program effects (Travers & Light, as cited by Cole & Washington, 1986).

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The purpose of this presentation is to focus on approaches to answering questions regarding the role of classroom interactions in determining program quality. Indeed, this has been a central focus for us as we study the effects of the Cognitive Enrichment Network approach (COGNET) as implemented in Head Start and Follow Through programs.

The major goal of COGNET is to provide a network of teachers, parents, and other caregivers who work together to help children become independent learners. COGNET is based on Feuerstein's theory of mediated learning experience (MLE) (Feuerstein, Rand, Hoffman, & Miller, 1980). Although MLE occurs naturally between dominant caregivers and children under normal conditions, Feuerstein and his colleagues have documented the ill effects of unusually high cognitive dysfunctioning in cultural groups under the stress of such problems as low income and drug abuse where quality MLE is not being provided.

In the COGNET preschool and primary school programs, staff use MLE as an intervention by explicitly mediating cognitive variables to help children understand how they affect learning during daily activities. The COGNET instructional model emphasizes an atmosphere where product is not disconnected from process, and the classroom serves as a "laboratory for learning" where children assist one another in exploring approaches to solving problems and understanding how to be successful in school, home, work, and social situations. Cooperative learning and problem-solving computer activities are implemented as well in an effort to assist children to operationalize the cognitive variables as well as building and test theories. Due to COGNET's dependency on adult-child interactions as a determiner of the quality of program implementation, understanding these interactions is central to evaluation of the effects of our program. Without this knowledge, we would be unable to determine the level of implementation of COGNET in the classroom, which could result in other evaluation activities becoming meaningless. Also, an understanding of classroom interactions has helped us begin to study the relationship between the person doing the intervention and the child. Finally, in order to determine the continuity of intervention over time, it is important in our situation that we determine if MLE occurs differently in Head Start classroom interactions than it does in Follow Through classroom interactions.

In order to determine the level of implementation, we have analyzed samples of classroom interaction by the level of MLE occurring across 13 variables. We have found that analysis of the middle five minutes of a 10-minute videotaped sample of large or small group interaction is sufficient to determine the degree of implementation. In fact, in comparisons of biannual videotaped samples for each class with qualitative analyses of six or more hours of classroom observation data, we have found that teachers display similar levels of use of MLE in both forms of data. As a result, we have been able to track trained teachers over a three-year period and group them into categories according to their level of use of MLE (Greenberg, Woodside, & Brasil, 1990; Gettys, 1990). One drawback of this approach, however, is the limited information about the structure of classroom interactions. Although we learned something about teachers' responsiveness or lack of it to children displaying problems in learning, we did not know how teachers structured their questions, the types of responses given by children, or the type of feedback provided by teachers. In addition, we did not know the effects of training on the structure of interactions. Our approach to answering these questions involved use of an alternative type of data analysis. In a recent study (Greenberg, Woodside, & Brasil, 1990), we determined the structure of classroom interactions for given levels of MLE based on relationships with variables of question dyad analysis of classroom situations where adults ask questions, children respond, and adults provide feedback. Subjects for this study included teachers and children in 11 classrooms where teachers had received COGNET training and in 13 classrooms where teachers were untrained. Trained and untrained teachers taught in separate rural southern Appalachian schools with similar cultural and socio-economic status.

The quality of MLE displayed on the videotape segments was determined using the Mediated Learning Experience Observational Analysis System developed by Greenberg (1990a). Table 1 displays the variables of Domain Specific Transcendence, General Strategic Transcendence, and Subjective Meaning, as well as their definitions and rating levels. Observers worked in pairs and recorded a consensus of rank scores for each variable. For nine of 13 MLE variables, observers recorded the highest level of mediation that occurred in each one-minute segment. For four other variables, observers recorded an overall rating for each segment. Interrater reliability of ratings for the MLE analysis averaged 85%. Teacher question/child answer/teacher response interactions were recorded using one component of Brophy and Good's Teacher-Child Dyadic Interaction System (Brophy & Good, 1969). The component of this system that we utilized codes dyadic interactions or occasions in which the teacher interacts with a single child for situations that are "public," i.e., other children are expected to be listening. Reliability of ratings for the Teacher-Child Dyadic Interaction System averaged 90%.

In order to determine patterns of relationships among levels of MLE and variables of question-dyad interactions for classrooms of trained and untrained teachers, a data analysis technique for the graphical display of multivariate categorical data was implemented. This technique, correspondence analysis, has been discussed in the literature under several names, including method of reciprocal averages and simultaneous linear regression (Hoffman & Franke, 1986). A unique feature of correspondence analysis is that it allows simultaneous consideration of multiple categorical variables. Correspondence analysis determined question-dyad characteristics for levels of total MLE, levels of general strategic transcendence, domain-specific transcendence, and subjective meaning. The 11 trained teachers and 13 untrained teachers were categorized into five levels of total MLE. Seven axes were found with the two axes, explaining 62% of the variance (i.e., the total inertia). Axis one explained 43% of the variance and axis two explained 19%. Consequently, the analyses focused on the definition of these two axes. Four groups of Level of MLE were found where distinctions could be identified. These four groups were in correspondence with specific question-dyad variables. An additional

analysis investigated the patterns of relationships with question dyad interaction variables for three prominent variables of MLE: Domain Specific Transcendence, General Strategic Transcendence, and Subjective Meaning.

Table 1. MEDIATED LEARNING EXPERIENCE ANALYSIS SYSTEM: A PARTIAL LISTING (Greenberg, 1990)

GENERAL STRATEGIC TRANSCENDENCE

Any connection between the given domain and cognitive processing of that domain that goes beyond the immediate need.

1 = Task Limited
2 = Generalized
3 = Reason For

DOMAIN SPECIFIC TRANSCENDENCE

Any connection between the content of the given domain and some other domain that goes beyond the immediate need.

1 = Task Limited
2 = Low Generalization
3 = High Generalization

SUBJECTIVE MEANING

Any verbal expression of a degree of worth that exists in the mediator's mind.

1 = Once Per Minute
2 = More Than Once Per Minute

TASK REGULATION

The quality of intervention provided by the mediator to a child who displays difficulty in the given situation (Lidz, 1989)

1 = Co-Opted
2 = Prompted
3 = Focused on Approach

LEVEL OF THINKING ELICITED FROM CHILDREN

The degree of higher or lower level thinking required from children as they respond to the mediator's intent.

1 = Recognition/Comprehension
2 = Application/Analysis/Synthesis and/or Evaluation

The results of these analyses suggest that not only do classroom interactions display different characteristics for classes with trained and untrained teachers, but they also display different characteristics by level of quality of MLE. In only two cases did any level of trained teachers relate to untrained. This occurred in the analysis of Domain Specific Transcendence and total MLE. It is interesting to note that in both cases the level of MLE scores were higher for the untrained teachers than for the trained teachers when they shared a profile. It is possible that the MLE training affects the structure of classroom interactions more than the quality of MLE. When the results of the correspondence analysis are examined, we found that the placement of trained teachers is almost always quite different from that of untrained, with trained and untrained teachers on opposite sides of a given axis for the analyses of General Strategic and Domain Specific Transcendence. In addition, certain variables of question-dyad Interaction, in most instances, characterized either the trained or untrained teachers. For example, questions requiring more than a recall answer (Process Questions) characterized trained teachers, and questions requiring only recall of information (Product Questions) characterized untrained teachers -- four analyses in all. For three of the four analyses, only untrained teachers were characterized as calling on a child before that child indicated a desire to respond (Child Direct Response). No type of response opportunity occurred at a level of frequency to characterize trained teachers. Children in classes with trained teachers were characterized as giving partially correct answers in all four analyses (Partially Correct Answers). In contrast, children in classes with untrained teachers for three of the four analyses were characterized as calling out answers before the teacher could give the identified child any feedback, or, in some cases, the opportunity to respond (Call Out Feedback). At the same time, situations where teachers continued their interaction with a child by assisting the child in thinking through a response (Rephrase, or Clue Sustaining Feedback) characterized trained teachers in three of the analyses -- but never untrained teachers.

These results are not surprising when one considers the theory of MLE. If teachers are aware of the role MLE plays in learning, then it makes sense that they would ask questions that require more than recall. Hopefully, they are attempting to turn the classroom into a laboratory for learning. At the very least, they do not appear to be using the classroom as merely a stage for producing right answers. Indeed, the answers most frequently given by children for trained teachers were partially correct. At the

same time, the untrained teachers were characterized by asking recall questions and allowing other children to "co-opt" a child's response opportunity by calling out other responses before the teacher could provide feedback to the child called on and further opportunity to respond. Trained teachers, on the other hand, provided frequent assistance to a responding child, which does not "co-opt" the child's response opportunity.

The results suggest that frequency of use of given variables of question-dyad interaction is related to level of MLE. In every case where teachers of one level of MLE shared a profile with teachers of another level, regardless of whether trained or untrained, the levels were consecutive. In other words, teachers with more similar use of MLE shared more question-dyad characteristics.

We find our results helpful in suggesting further research as well as highlighting correspondence analysis as a productive means for characterizing classroom interactions. We can say that MLE appears to relate to patterns of question-dyad interactions. We can also say that our trained and untrained teachers share varying profiles characterized by given question-dyad variables. However, this study does not allow us to determine whether preschool classroom interactions differ from those at the primary school level and hence effect programs such as COGNET.

Our final question, then, relates to program continuity across time. To date, we have analyzed data only on untrained Head Start staff and untrained teachers in primary grades (Greenberg, 1990b). A few of the findings have implications for early childhood research. The data suggest that adults relate differently to children in preschool than they do in primary level classrooms. Preschool Head Start staff discussed one or more cognitive processing variables in 42% of the segments analyzed, as compared to 69% of the segments for primary level teachers (General Strategic Transcendence). However, the preschool staff connected cognitive processing variables to their use beyond the given task twice as often as primary level teachers (occurring in 18% and 9% of the segments, respectively). Preschool staff also connected concepts within the given situation to each other or assisted children in generalizing them in 28% more segments than did preschool teachers (Domain Specific Transcendence). These results tend to suggest that preschool staff mediate at a higher level than primary level teachers. However, percent of occurrence of levels of MLE for other variables suggests a more complex situation. Preschool staff "co-opted" or took away opportunities for learning from children displaying problems in 64% of the segments analyzed, as compared to 35% of the segments for primary teachers (Task Regulation). The preschool staff also provided substantially less prompting or suggestion of an approach for solving a problem to children than did preschool staff. In addition, the preschool staff provided opportunity for higher-level thinking in 43% of the segments analyzed, as opposed to 80% of the segments for primary teachers (Level of Thinking Elicited).

With our newly utilized approach of correspondence analysis, we intend to expand this study to determine profiles of question-dyads variables and level of use of MLE variables for both groups. We will study as well the effects of COGNET training on such differences. Because of the need to measure the process of intervention as well as the results, classroom interactions must to be examined as a part of a comprehensive evaluation of center-based and school programs. The theory of MLE provides a comprehensive approach for such analysis, especially when combined with analysis of structure such as Brophy and Good's Teacher-Child Dyadic Interaction System. According to Kagan (Holden, 1990), the traditional approach to research in early childhood education is to administer treatment and measure outcomes. As the data presented here reflect, when such an approach is used without determining the level of program implementation, the degree of program continuity over time, and the relationships between adults providing intervention and children receiving intervention, we may miss observing the heart and soul of the intervention.

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Discussion *John W. Hagen*

We have learned a number of lessons from research and practice in cognitive developmental psychology over the last 15 or 20 years since there has been such a rush of activity in this area, and I want to just mention a few of those to begin. I will also raise some concerns and cautions that I have about particular applications. One is that we cannot separate cognition from affect, and I think we see that more and more. Both researchers and practitioners are acknowledging that fact, and that certainly comes through in what we have heard today. Another is that all learning has to be viewed in context, and so we are seeing less and less research that is being done in the very carefully controlled laboratory setting, but we are also realizing that if we are going to really understand the factors that affect how children learn, why they learn, and why some children learn differently than others, we are going to have to have a lot more detailed understanding of the context. We also now have a much better understanding of the role of particular factors, for example, language, that contribute to the learning setting. Finally, we have begun to back off of the revolution in language development that started with Chomsky, that was looking at virtually everything as being evolving simply as a process of development from the black box, and our realizing again that we have to look at details of the environment and, in particular, at parent/child interactions and teacher/child interactions and the way that language plays the key role in the child's early development. It is language in a broader context. Certainly we know from tons and tons of research that various indicators of language probably are the best predictor of performance in almost any particular area; even measures of language tend to be a better predict of math competency than measures of math. A final point I would like to mention in this context, and I think one that raises some concerns for the kind of work that is talked about here, is that we have very little evidence that simple linear models really do predict for us, so that any one particular kind of intervention today will lead to a particular kind of effect tomorrow for a particular child. We know that as our window of prediction becomes longer, the predictability falls way off. The people working with various models to try to predict psychopathology -- Arnold Samiroff is certainly one of the dominant names in this area -- find that it is an additive model. There are a number of predictors of risk for children, and we see that children are more and more likely to run into various kinds of problems academically and behaviorally as they get older. It does not seem to matter which particular predictors those are! That would call into question whether this very careful analysis of what is done with a child at a particular age and time is, in fact, the critical thing. The epidemiological evidence, where we are working with very large numbers or lots of different predictors, does not seem to support that kind of model.

The early literature that talked about very similar kinds of things was pioneered by Hess and Shipman in the early 1960s at the University of Chicago. They were the first people to look at the role that mother/child interaction played in children's development. They classified their mother/child pairs into certain social class variables and found that the economically disadvantaged families showed the least adequate mother/child interactions. They then began to introduce various interventions. Shortly after that, Norma Feshback of UCLA did work in which she looked at mother/child interactions and learning studies, and particularly focused on the role of reinforcement. One of the several interesting findings from her early work was that the amount of positive reinforcement across different social classes did not differ so much, but the amount of negative reinforcement was greater among mothers from the lower SES groups.

The work of Anne Marie Palizar and Anne Brown is drawn heavily from Vygotsky in providing the basis for their approach. They also borrowed from Bruner, who introduced the notion of scaffolding in instruction -- work that has been done at the grade school level and up. Palinzar defined scaffolding as the process that enables a child or novice to solve a problem, carry out a task, or achieve a goal that would be beyond his unassisted efforts. Central to the notion of scaffolded instruction is Vigatsky's zone of proximal development, that is, the distance between the actual developmental level as determined by independent problem-solving and the level of potential developed as a result of problem-solving under adult guidance or in collaboration with more capable peers. In their work with teachers and trained peers who might be slightly older, they have come up with some very interesting and clever ways to both intervene in and then study the process to see what the instructor is able to do to affect the way the child deals with the situation. The idea is that when you are working to get a child from one level to another, you need to work at the appropriate interventions just above where the child is, then the child will be able to move to that next level. It is actually quite Piagetian, too, in terms of his notion of the child's ascent through the different cognitive developmental levels. Many people in education these days are working with this particular model as a basis.

Another issue is whether we should be devising specific programs and techniques to work with children who are not doing so well, and whether we should be involved in remediation in education or intervention. If we look cross-culturally, we have probably spent more time and effort on remediational and special educational approaches than any other country, although some of the European countries are close to us now. Asian cou. .ries have not done this at all, and yet the achievement of their children is far outstripping children in the U.S. today. Although this work has been criticized, when we look at both the products and the process, we realize that we do not yet have the answers. Some of the answers we, the educational establishment, and the teachers' unions use are certainly not supported by the evidence.

For example, Stevenson looked at both reading and math achievement across several countries -- Japan, Taiwan, Mainland China, and, more recently, Hungary. They have done classroom analysis, not individual student comparison analyses, in these countries, and in the best classrooms in two U.S. cities -- Minneapolis and Chicago. Their findings show that by the time the

children are in junior high school, achievement in the very best classes in Minneapolis and Chicago is lower than the worst classes in Taiwan and Japan. This is looking at classes, which does not say that there are not individual kids who are up there, but we still have to ask ourselves what is going on. In the U.S., children are not as low in reading as in math, but they are certainly not doing nearly as well as the children there. When you start to look at the analyses of what is going on in the classes, you realize that it is a different picture from what we assume. The classes tend to be large, with 40 to 50 students, and they do a lot of rote learning. They also have a lot of oral interactions: students are called on a lot. They seem rather noisy in comparison to what we try to do in our classrooms, but the students enjoy it. They have from six to eight recesses a day. They will have a 40-minute period followed by a 20-minute recess; then they come back. They also do exercises: physical exercises, eye exercises and so forth. That is a very different classroom experience, but there is much less attempt to do careful analyses of the learning process than we do these days, and they are doing things that they have been doing for quite long periods of time, that seem to work and are quite effective. They do have, interestingly enough, in these countries, about the same percentage of children who have reading problems or dyslexia, even though they have not admitted that. And so they are not eliminating those kinds of problems.

The parents in all of these countries have very different attitudes towards school and the importance of school than in the U.S. today. Generally, parents in the U.S. are very satisfied with how their children are doing, even though their children are not doing that well! Parents in Japan and Taiwan are much more concerned and critical, but they are also more ego-involved in what their children are doing in school. I think there has been a real change in our society in terms of the way parents are involved. I also think this transcends social class. We are not just talking about the lower SES parents of families here. I think that there are at least significant numbers of parents that go across the social classes who are not really very involved or knowledgeable about what it is their children are doing in school. I think that we are paying the consequences for that.

The final thing I wanted to mention is that one of the general approaches that has emerged in cognitive developmental research in the last 20 years is the research approach of trying to look at how children perform in a certain task, develop some age norms in that very particular area, such as mediational learning, which is one of the areas in which this pioneered, and then introduce simple training paradigms for the children who are just a bit younger than where that would emerge, and then see if the training can bring the children's performance up, and then apply certain criteria. Does the training last? Does it last, if it does work at all, beyond that particular intervention? Does it generalize?. Finally, does it transfer?

I think that with any of the interventions that we are going to attempt, we have to keep in mind that we are always going to have to ask ourselves these questions. We will need evidence that it will last, that it will generalize, that it will transfer.

AUDIENCE DISCUSSION

The first two speakers were asked to further comment on the motivation of parents and how they were selected. In the Lidz intervention study, all parents were assigned from an agency that serves parents at-risk for abuse or neglect of their children. These parents were being closely monitored, and they may have been motivated by their desire to "progress" in order to leave the agency. The program itself was not imposed on these parents, but they unanimously agreed to participate. Their individual motivation seemed to vary, but we didn't have a formal indicator of motivation. In Kahn's intervention, the families of disabled and at-risk children were referred through an ICU. Nurses were the first point of contact. We took first come, first served. The only requirement was that they allow a weekly home visit and are willing to work with their children. The services were free and toys were brought. Once in the home, goals were set by the parents. Parents were not always ready to focus on their children's needs until some of their own had been met. In these cases we taught them problem solving techniques to help them reach their own goals. These home visits were conducted by people with various levels of educational training, but could be done by paraprofessionals. Greenberg added that she also has a parent component to her cognitive intervention. Seventy-five parents have attended a 20-hour workshop which is offered several times a year. One audience member stressed the importance of looking at more of the environment than the teacher/child or the parent/child interactions by including interactions between adults and children and children and children.

Further audience discussion centered on the value orientation of the MLE concept and cultural variations in mediational processes. Comparing Asian and American school systems, one participant observed that the U.S. math curriculum focuses on correct solutions, whereas Asian teachers spend most of their time on eliciting different ways to solve the problem.

Panel 104 SOCIAL SUPPORTS AND FAMILY FUNCTIONING

Chair: **Chaya Piotrkowski**; *Discussant:* **Cleopatra Howard Caldwell**

The Influence of Nonmaternal Adults on Perceived Satisfaction of Mother's Role *Melvin N. Wilson, Judy Curry-El, Lan Do, Ivy Hinton, Laura Kohn, Alex Underwood*

Project Head Start, now in its 23rd year, works to ensure the cognitive development, academic achievement, and socioemotional development of children. It stresses the importance of family involvement. Although this program has had substantial

success, there have been some criticisms. Head Start has neglected to incorporate some of the issues that relate to the incidence of poverty, such as increased unemployment, racism, reduction of training programs, increase in female-headed households, and the identification of culturally relevant factors that lead to economic mobility (Randolph, 1988).

In order for the Head Start program to fit the needs of today's low income African-American families, some key factors of alternative family styles must be taken into account. Because there is such a high number of female-headed households, the amount of parental involvement has decreased. However, African-American families tend to exist in extended family systems (Wilson, 1984). Thus, although parental involvement may be limited, the availability of other adults should be considered.

Socialization is the process by which a child acquires functional skills for social interaction. Familial characteristics that influence socialization include family structure and composition, including number of adults and children, family income, and performance and perceived satisfaction with household and child care duties. The cultural context and orientation of the family also mediates socialization. Black families face unique challenges, including divergent cultural values and minority status, that affect the socialization process (Boykin & Toms, 1985). It is important to view families as having an interactive relationship with the environment which directly impacts adaptive strategies, socialization goals, and resultant individual well-being (Harrison, Wilson, Chan, & Buriel, 1990). Contrary to previous assumptions, it is equally important to keep in mind that within these family patterns, heterogeneity is the rule (Wilson, 1984; Wilson, 1986). Research on Black families that lacks a conceptual framework recognizing the unique position and orientation of Blacks will fail to provide an adequate picture of true functioning and may become susceptible to stereotyping (Boykin & Toms, 1985; Slaughter-Defoe, Nakagawa, Takanishi, & Johnson, 1990; Harrison et. al. 1990).

Although the child will come into contact with and be influenced by many socializing agents during his formative years, the family will typically take primary responsibility for socialization. More likely than not, because the earliest primary caretaker of a child is the mother, socialization begins through maternal caretaking. Family life research has shown the maternal role to be critical for child survival. Other family roles, including the father role, provide an important supportive function to the mother. In turn, maternal care has been shown to be dependent on the amount and quality of family resources and support, including the number of adult and child family members. Also, there has been evidence linking certain aspects of maternal functioning to children's psychological well-being (McLoyd & Wilson, 1990).

Thompson and Ensminger (1989) demonstrated that Black single mothers who lived with another adult exhibited significantly less psychological distress than mothers who remained the sole adult in the household. It is possible that the presence of other adults provides an informal support network for mothers. These adults can provide help with child care and household duties, thereby reducing maternal stress. It has been found that mothers who use parents, siblings, in-laws, and non-kin as sources of assistance exhibit less parental stress than those without these networks (Koeske & Koeske, 1990; Taylor, Chatters, & Mays, 1988; Stevens, 1988). Additionally, the number of children in the household can affect mothers' level of stress. Weiss (1979) found that Black children living in single-parent households take on adult roles and responsibilities at a significantly earlier age than other children. Mothers' marital status can also have an effect on her satisfaction and psychological well-being. Although studies show that husband's participation in household and child care duties is minimal, he does play a positive role as a source of emotional support (Slaughter-Defoe & Dillworth-Anderson, 1988).

The well-being of a parent is greatly affected by the family's economic status. Low economic status places hardship on the parent by limiting budget and resources, time with family's, and life satisfaction. Economic hardship has also been shown to alter the parents' socialization pattern of their children (McLoyd & Wilson, 1990; Wilson, 1989; Flanagan, 1990). Finally, economic hardship can deteriorate family cohesiveness and integration (Silbereisen, Walper, & Albrecht, 1990). Since a disproportionate number of families living in poverty are female-headed, single-parent families, this group is at greatest risk for psychological distress (McLoyd & Wilson, 1990). Maternal care has been shown to be dependent on the amount and quality of family resources and support, the number of family members, and family income (Slaughter-Defoe & Dillworth-Anderson, 1988). Also, the quality of maternal care is related to mothers' perceived satisfaction in relation to household and child care duties and her psychological well-being (Slaughter-Defoe & Dillworth-Anderson, 1988). Children's well-being is affected by their mothers' psychological well-being, which in turn is associated with family composition and familial support networks (Stack, 1974; Lindblad-Goldberg, 1988).

The present study attempts to view the context of child socialization as related to mothers' level of perceived satisfaction, which is dependent upon family structure and family income. It is further predicted that mothers' satisfaction will influence child well-being. This study predicts that the availability of other adults will impact upon mother's perceived satisfaction of her parental role. It has been argued that the presence of additional adults in the family is beneficial to mothers' psychological well-being (Wilson, 1984). Furthermore, it has been demonstrated that mothers' psychological well-being is related to positive child outcomes (McLoyd, 1990). Therefore, although parental availability in African-American families may be decreased, the availability of other adults can contribute to positive child outcomes. Thus, the hypothesis being tested is that parental availability and adult availability affects mothers' perceived satisfaction, which influences child outcomes.

METHOD: The National Survey of Families and Households Data (NSFH, Bumpass & Sweet, 1988) is a multi-stage probability sample of 13,017 families responding to a randomly selected screening of households from 100 sampling areas in the continental United States. Data were collected from April, 1987 until May, 1988. The main sample included 9,643 respondents, along with a

double sampling of minority families and families with single parents. This was done to provide an adequate pool of subjects for investigations concerning these unique and understudied populations. After the initial screening, respondents were interviewed in several stages. The main interview consisted of 671 questions, including a 64-item self-administered questionnaire. For the present study, Black families, which included children aged 5-18 and in which the respondent was identified as the mother of the household, were selected. As a result, our study consisted of a total of 382 families. The children were divided into two age groups: age 5 -11 and age 12 - 18. This was done to obtain a better representation of children, given developmental changes occurring across age groups. A factor analysis of questions answered by the mother resulted in three factors: perceived satisfaction of parenting, perceived difficulty of household tasks, and perceived enjoyment of household tasks. These groupings formed the dependent variables used for the study.

Several independent variables were used to predict mothers' perceptions of child care and household tasks. These variables include the number of adults present in the household, not including the mother, the number of children in the household, and family income. Family income was calculated based on the total amount of reported yearly income from several sources.

Factor analysis was used to group questions answered by the mother about the focal child who was selected from the household roster. Variables included scale scores of child well-being in five areas. For pre-adolescent children aged 5 to 11, quality of relationship with others, level of responsibility, activity level, overall enjoyment of life, and child temperament were included. For adolescent children aged 12 to 18, these areas included: level of responsibility, amount of conflict over autonomy issues, child temperament, academic achievement, and conflict over sexual behavior.

RESULTS: Family structure factors were believed to form an important link to mothers' perceptions. The independent variables, including number of adults, number of children, and marital status were analyzed in terms of their relationship to mothers' satisfaction with parenting, mothers' perception of difficulty of household tasks, and mothers' perception of enjoyment of household tasks. A second stage of analysis examined the relationship of mothers' perception variables with pre-adolescent and adolescent child well-being.

Correlational analysis of the data confirmed that there is a significant link between family structure and mothers' perceptions. Significant correlations for number of children and adults indicate that the number of children have a positive relationship and the number of adults have a negative relationship with mothers' perceived satisfaction of parenting. Also, perceived difficulty of household tasks was negatively associated with number of children, while family income was positively associated with perceived enjoyment of household tasks. In developing more sophisticated models of analysis, the predictor variables and the outcome variables concerning mothers' perceptions were entered into a multivariate regression model to predict mothers' perceived satisfaction as a direct effect of the number of adults, children, and family income of the household.

Multiple regression analysis revealed significant overall results of mothers' perceived satisfaction with parenting as predicted from family structure and income variables. These variables explained 35% of the overall variance. Mothers' perceived difficulty of household tasks and perceived enjoyment of these tasks were also significantly predicted by the independent variables; however, the amount of explained variance for both variables did not approach meaningful levels. Separate analyses of the individual contributions of each independent variable to the prediction of perceived satisfaction of parenting was done. Surprisingly, an increased number of adults in the household was significant but negatively predictive of parenting satisfaction. The number of children present in the household and family income were positively predictive of perceived parental satisfaction. Other results from separate regression analyses showed that number of children was positively predictive of perceived difficulty with household tasks. Also, family income significantly predicted perceived enjoyment of household tasks. However, due to the low amount of explained variance that is accounted for by these variables in the overall regression model, these results should be considered tenuous.

The second stage of analysis looked at the relationship between mothers' perceptions and preadolescent and adolescent well-being measures. Children aged 5 to 11 and 12 to 18 were analyzed separately. There was a significant and positive relationship between perceived satisfaction with parenting and pre-adolescent children's responsibility measure. Results for older children revealed that perceived satisfaction with parenting was positively associated with adolescents' temperament measure. Also, perceived difficulty of household tasks was related to the measure of conflicts over adolescents' sexuality, and perceived enjoyment of household tasks was significantly related to the measure of autonomy conflicts.

DISCUSSION: These results indicate that maternal perceptions are associated with family structure variables in accordance with previous studies. The relationship between mothers' perceived satisfaction with parenting and these variables proved to be the strongest, indicating that the maternal role is affected by the number of adults and children in the household and the amount of financial resources available to the family.

It is interesting that the number of adults was negatively associated with parental satisfaction. This finding conflicts with the hypothesis that the presence of other adults strengthens mothers' support networks. It is possible that while other adults may provide support for the mother in certain areas such as personal well-being, those mothers with sole responsibility and complete autonomy perceive themselves as having a greater investment and thus more satisfaction. In an investigation of the predictors of parenting skill

among different groups of Black mothers, Stevens (1988) found that the only significant predictor for older, single mothers was a sense of control.

As expected, the number of children and family income positively predicted satisfaction with child care. These results support the notion that children provide extra help for mother by taking on additional family roles. Previous studies showing that mothers who experience economic hardship exhibit greater distress were supported by the finding of family income as a significant predictor of perceived enjoyment of household tasks.

The results linking mothers' perceptions to child well-being measures should be considered preliminary; however, there is some evidence to support possible relationships. Particularly interesting findings concern the possible relationship between children's temperament and parental satisfaction. The relationships between mothers' perceptions of household tasks and conflicts with teens over issues common to adolescent autonomy development and sexuality/dating behaviors are interesting and warrant further exploration.

Some limitations of the data produced by missing data problems include questions not answered, answered as "not applicable," and questions that some respondents refused to answer. These problems resulted in low number of cases for some of the selected variables. Low number of responses was a particular problem in certain sections of the data, specifically the questions concerning child well-being. These irregularities lead to low statistical power in terms of explained variance. Thus, correlational analysis was utilized for child well-being measures and should be considered preliminary and tenuous.

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Family Support Programs and Black Churches: Implications for Strengthening Black Families

Cleopatra Howard Caldwell, Angela Dungee Greene, Andrew Billingsley

Family support programs often use an ecological approach that refers to the interdependence of the family, the individual, and the community. This approach implies a reciprocity between or among these entities (Kagan, Powell, Weissboard, & Zigler, 1987). According to Deal, Dunst, and Trivette (1989), family intervention methods should enable, empower, and strengthen the family. As an integral part of the African-American community, the Black church has the potential to be an important part of these frameworks.

Within the context of the African-American community, church and family are interdependent institutions that have interacted over time to strengthen each other (Roberts, 1980; Smith, 1985). Since their inception, Black churches have provided various forms of supports and services to families within their individual memberships and to the community at large (Mays & Nicholson, 1933; Harris, 1987; Lincoln, 1989; Sullivan, 1978; Mukenge, 1983).

As advocated by Eng, Hatch, and Callan (1985), the effectiveness of community-based service delivery is contingent upon the deliverer's status in the community as a source of nurturance, esteem-building, and social and economic empowerment. In this context, the source is referred to as a unit of identity. In addition, there must exist an historical pattern of offering these resources; in

this case, the provider is considered to be a unit of solution. Eng et al. (1985) view the Black church as both a unit of identity and a unit of solution. According to the authors, the Black church becomes a unit of practice by gaining the approval of the most influential church members to garner internal resources for the purpose of family and community-oriented service provision.

Incorporating aspects of the social systems model (Billingsley, 1968), the family systems model (Deal, Dunst, Trivette, 1989), and a concentric model of social care (Cantor, 1989), this study conceptualizes Black churches as family support systems. The Black church serves as mediator between the family and the formal social system. The church's relation to the family is one of interdependence, mutuality, and reciprocity in the African-American community. The church is also involved in a reciprocal relationship with the formal structure; however, there are both real and perceived barriers between the African-American community and larger societal institutions. There is a tenuous relationship between the formal networks and the family characterized by waning resources. As the family-support model illustrates, Black churches are in the optimal position to both provide assistance to families and serve as a referral to formal social service institutions. The Black Church Family Project is a national study designed to identify and describe family-oriented community outreach programs sponsored by 1,500 Black churches for the purpose of enhancing the functioning of African-American family and community life. The outreach programs of interest are those that include social services to people who are not church members. It is the first national probability sample of Black churches in the continental United States. This paper is based on 634 of these Black churches from the northeastern and north central regions of the country only. It provides a preliminary analysis of the family functioning support services provided by these Black churches.

METHOD: For the purposes of this study, a Black church is defined as one in which the majority of its members are Black and its leadership (i.e., the senior minister) is also Black. While this definition eliminates some churches that may be doing exemplary outreach work, it enables us to discuss with some consistency the issues of Black self-help and Black leadership across denominations.

By working with the Institute for Social Research at the University of Michigan and using the overall sampling strategy developed for the National Survey of Black Americans (Neighbors & Jackson, 1984; Hess, 1985), we developed a methodology for selecting a nationally representative sample of 1,500 Black churches. The basic sampling framework included 76 primary sampling areas for the nation. These areas were stratified by region. The sample was distributed among the four regions in proportion to the number of African-American households in each region. Thus, the northeast and north central regions were each allocated 21% of the total sample of churches. Our goal was to obtain 315 interviews in the northeastern region and 315 interviews in the north central region of the country.

The sample of churches within each region was further stratified by denomination. The sampling procedure used is based on a two-stage equal probability sample design. However, because of the uncertainty in estimating eligibility and response rates for Black churches, a replicated sampling procedure was used, which resulted in a final sample of 634 northern Black churches and a response rate of almost 60%. Ten primary sampling areas were selected to represent the northeastern region of the country and 14 primary sampling areas were selected to represent the north central region. A total of 11 northern states and 24 primary sampling areas were included. Most of the churches in the sample are from large urban areas (75%), and a few are from small urban areas (25%). Only three rural churches are included in this sample.

Specially trained interviewers completed a 30-minute telephone interview with a representative from each church. The senior minister of the church completed the interview in 74% of the cases. In the remaining cases, a person knowledgeable about the church's outreach efforts was assigned by the senior minister to complete the interview. Brochures emphasizing the churches' activities were also received from most churches.

The data were collected using an interview schedule designed by the project staff and community leaders to include information on the churches' characteristics and structure, characteristics of the senior minister, the nature of outreach programs, and the financial status of the church.

RESULTS: Baptist churches represent the largest percentages of Black churches (43%), followed by Methodist (13%), and Pentecostal churches (11%). Ages of the churches range from 1 to 203 years old, with a median of 38 years. Most churches are relatively stable in that the median number of years that the church has been at the same address is 20, and 55% of the churches had moved only once or less in their history. Church membership size ranged from 1 to 5,000 members, with a median of 160 members per church. Eighty-nine percent of the churches had 50% or more female members. The majority (56%) of churches have only one paid clergy, with 51% having other paid staff present. An overwhelming 92% of the senior ministers of these churches are male.

Seventy-five percent of the churches are located in all African-American communities. Sixty-three percent of the churches actually own their own buildings, and 29% are in the process of buying their buildings. Only 8% are renting their church buildings.

When we examined the number of churches in our sample that supported community outreach programs in general, we found that more than two-thirds (or 425 churches) operate one or more programs, while 33% (or 209 churches) did not. A total of 1,798 family and community support programs are offered by these churches, with a range of 1-18 programs and a median of 3

programs per church. Since the focus of this paper is on those church-based programs that are aimed a strengthening and supporting families, our analyses were limited to the 1,683 programs, or 94% of total programs, that directly impact family functioning.

Billingsley (1968) has identified two categories of functions that families are expected to meet for their members. Some of these are instrumental functions, which include the basic life-sustaining needs of food, clothing, and shelter. Others are expressive functions, which included providing for the emotional, intellectual and spiritual development, and well-being of its members. Some functions, such as basic education, child care, and health-related support incorporate both instrumental and expressive characteristics.

Based on the findings of this study, the services rendered by the churches have been categorized into those that provide instrumental, expressive, or both instrumental and expressive support to families. Results indicate that these churches provide more instrumental services to families through their outreach programs than either expressive or what may be considered both instrumental and expressive services. Specifically, 46% of family support programs offered are geared toward the instrumental needs of families. It appears that for these Black churches, the primary emphasis of family support is on fundamental, survival-oriented provisions such as food, clothing, and shelter. Expressive needs embodied in counseling and social interaction-related activities are addressed by 28% of the programs sponsored by these churches. The remaining 26% of the family support programs are those that possess characteristics of both the instrumental and expressive functions.

Specific types of services provided by the churches fall into six dimensions of family support. They have been identified as counseling and intervention, social recreation, basic needs assistance, income maintenance, education and awareness, and health-related activities. Dimensions one and two comprise the expressive category, three and four the instrumental grouping, and the five and six instrumental and expressive category.

In an effort to further explore the nature of some of the support programs offered by the Black churches in this study, we asked the respondents to describe in more detail two church outreach programs of their choice. This section presents information gathered on only the first program described. Issues examined include characteristics of the population served and the staff, as well as the main funding source of the program.

The results of the analyses of the 400 family support programs described indicate that 62% of these programs are designed to address instrumental needs, 17% provide expressive services, and 21% are targeted toward instrumental-expressive activities. Although this is a similar pattern to the overall program-type distribution, more instrumental and fewer expressive programs were described in more detail by the respondents.

Given the basic needs orientation of instrumental functions, we were not surprised to find that these programs are significantly more likely to serve low-income families than either expressive or instrumental-expressive programs (X^2=58.56, df=6, p=.000, CV=.28). Apparently, expressive and, to a greater extent, instrumental-expressive programs are used by more economically diverse families.

Most programs, regardless of the type of family functions provided, are staffed primarily by volunteers. Ninety-five percent of the instrumental programs are staffed almost completely by volunteers, while 64% of the expressive and 71% of the instrumental-expressive programs are mainly staffed by volunteers. Although most programs in all categories are operated by a predominantly volunteer staff, programs that are instrumental-expressive in nature have significantly fewer volunteers that the instrumental or expressive only categories (X^2=44.18, df=4, p=.000, CV=.24). Specifically, about 29% of the instrumental-expressive group have less than half volunteers, and many of these programs have no volunteer staff at all. Thus, the instrumental-expressive programs sponsored by these churches appear to have more paid personnel than instrumental-only or the expressive-only programs. This is not surprising, since many of the programs in this area are education and cultural awareness programs for youth or health-related services. Many churches employ youth ministers to coordinate youth activities, and sometimes employ professionals to assist with health-related activities. These are often paid positions with specific job requirements and expectations.

The majority of the staff for all programs are female; however, instrumental and instrumental-expressive programs are significantly more likely to have female staff members than are expressive programs (X^2=16.62, df=6, p<.01, CV=.15). Church members are most often the staff members for all categories of programs, although instrumental-expressive programs are significantly less likely to be staffed by church members than the other two program types (X^2=43.75, df=2, p=.000, CV=3). This finding suggests that church members are the backbone of most of these outreach efforts, particularly for instrumental programs and expressive activities. Members willing to volunteer their time and energies appear to sustain church outreach activities.

When asked about the main funding source for the family support programs described, the church itself was the overwhelming response for the instrumental-only and the expressive-only family functioning categories. The possible choices offered included the community, foundations, local government, state government, federal government, other churches, the church itself, or any combination of these resources. The church sponsoring the program funded the program for 78% of the expressive programs and 66% of instrumental programs; however, only 45% of instrumental-expressive programs are funded by the churches alone. Again, given the youth- and health-oriented nature of the instrumental-expressive category, it appears that churches joined with other funding resources, such as local government, other churches, and foundations, to fund these types of programs. Additional exploratory analyses were conducted with a classification of churches as providing either instrumental, expressive, or any combination

of instrumental and expressive services. These findings are extremely tentative; they cannot be viewed as definitive. Supplementary data and further analyses will help to clarify some of these issues.

One important indication of the types of services provided by these churches seems to be membership size. That is, 17% of churches classified as providing instrumental services are small churches (i.e., 1-70 members), 38% are medium-sized churches (i.e., 71-175 members), and 45% are larger churches (i.e., 176 members or more). Twenty-six percent of expressive churches are small, 25% are medium-sized, and 48% are large. On the other hand, 65% of churches that are classified as providing both instrumental and expressive services are large churches, as compared with 23% that are medium-sized and only 12 % that are small. It appears that larger churches have a greater tendency to offer a wider variety of outreach programs.

The number of outreach programs the church offers also seems to be an important factor. Among churches that are instrumental in nature, 81% have one to two outreach programs and 19% have three or more programs. Among expressive churches, 95% have one to two programs and 5% have three or more programs. On the other hand, for churches classified as both instrumental and expressive, 17% have one to two programs and 83% have three or more programs. Thus, churches with more outreach programs have a tendency to offer both instrumental and expressive programs.

CONCLUSIONS: This study is sensitive to the fact that, in a changing society, families of various structures and social classes are increasingly less able to provide completely and independently for the instrumental and expressive needs of its members. The Black church is viewed as a major source of social support in meeting some of these needs. The most conservative estimate of the number of Black churches in this country is between 65,000 to 75,000 (Jacquet, 1989; Melton, 1988; personal communication, Lawrence Mamiya, 1989). Moreover, Lincoln and Mamiya (1990) estimate Black church membership at roughly 24 million in 1989. This suggests that Black churches have the potential for providing the infrastructure for reaching large numbers of African-American families in need.

This study documents the fact that the contemporary Black church continues to provide social service functions as an extension of its essentially spiritual and religious functions. We found that 7 out of 10 Black churches are indeed a viable support network for families. Of the 1,683 family support programs offered by 425 churches, the majority may be classified as programs designed to meet the instrumental needs of the family.

We found that not all churches are equally involved in providing assistance with various types of family functions. That is, churches with relatively greater resources (more members and more programs) may be more inclined to reach out beyond the basic instrumental service of providing food, clothing, and shelter to embrace some of the more expressive services of an educational, training, and cultural nature. Thus, these churches provide a wider variety of services in meeting family needs. A profile of the 400 programs described in more detail is that these programs are for poor families; most are staffed by volunteers, females, and church members, and the resources necessary to support these programs are typically provided by the church.

What, then, are the implications of this study's findings for the further enhancement of African-American family life? The following are suggestive: According to the responses regarding the first program described, the program staff comprises primarily volunteers and church members. If this level of volunteerism and member participation is indicative of church programs in general, then the cost of family support provision by churches may be lower than that which is characteristic of formal network services. Thus, funds typically spent on salaries may be allocated to other aspects of program or resource development.

Because the vast majority of both the church service providers and the participants are African-American, many of the cultural barriers that often inhibit effective service delivery and long-term participation may be eliminated. This type of indigenous service delivery system has the potential of reaching hard-to-reach families in need.

The study results indicate that larger churches are more likely to offer specialized services that involve more time and resources than smaller churches. Policy-makers should concentrate on helping these larger churches develop their full potential as helping networks through the use and further development of their community outreach programs. Since most churches, including smaller churches and those that have very few outreach programs, offer basic needs assistance -- particularly food and clothing distribution services -- private and governmental agencies should help facilitate the development of linkages between central distributors and local community churches.

In order to strengthen the network of Black churches that operate independently and cooperatively with other community institutions to provide an array of social services for populations that are often hard to reach by the formal system of service delivery, unobtrusive mechanisms should be developed to support the community out reach efforts of these Black churches. For example, social service agencies should be encouraged to contact churches so that more cooperative arrangements can be made to sponsor additional community social service programs. This kind of collaboration would serve to extend service availability to community residents as well as reach hard to reach populations. Adoptions, foster care, family counseling and family preservation agencies could improve substantially the effectiveness of their work with African-American families through more active collaboration with Black churches. Foundations, corporations, Black organization, and local governments should establish funding resources for churches that would not require complicated application procedures for promising family-oriented community outreach model programs.

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Social Support and Well-Being in Childhood: Implications for Intervention

Mary J. Levitt, Nathalie Guacci, Jerome L. Levitt

Evaluations of national efforts to improve the educational performance of children in low socioeconomic environments have typically found relatively small gains in achievement (Kennedy, Birman, & Demaline, 1986). At the same time, there are children in schools targeted for intervention who do remarkably well despite the conditions of poverty in which they reside. Our research is based on the premise that intervention efforts may be more fruitful if we can delineate the social factors that moderate the child's response to the educational environment. Furthermore, we believe that these factors are best studied from a social network perspective. Individuals develop within a network of social relations that function, in part, to provide support. The characteristics of social networks and the benefits of supportive social relations in adult life have been amply documented (Antonucci, 1990; Levitt, 1991), but much less is known about the emergent structure and functioning of social networks in childhood. Researchers are only beginning to specify how the child's relations with parents, grandparents, siblings, friends, or other significant individuals are woven into a cohesive network of social relations that provide support to the child (Belle, 1989; Bronfenbrenner, 1986; Lewis, 1987; Reid, Landesman, Tredar, & Jaccard, 1989).

Our own work has been focused initially on conceptual and methodological issues in the measurement of children's networks. We have adopted as our framework the convoy model developed by Kahn and Antonucci (Antonucci, 1986). From this perspective, the social network is defined as a dynamic hierarchic structure within which individuals exchange support across the life span. Changes in network structure and function are hypothesized to occur across developmental transitions. Convoy structure and function have been measured extensively in adults with a hierarchical mapping procedure, in which participants are asked to place individuals who are "closest and most important" to them in the inner circle of a concentric circle diagram, with those "not as close, but still important" in the middle and outer circles. Once the diagram is completed, participants are asked to indicate persons in the network who provide various instrumental, emotional, and self-affirming support functions. We have modified the procedure for use with children. The convoy mapping procedure has several distinct advantages over existing measures of children's networks. First, the measure has been used extensively with adults, and enables life span comparisons. Second, the procedure is relatively simple to employ. And third, the method does not presuppose that specific relations are close or important, or that these relations are primary support providers.

The current project has three specific aims: The first aim is to obtain normative data on social network structure and function at three age levels that are thought to mark developmental transition points in childhood. The second aim is to provide cross-ethnic comparison data to assess which aspects of social network development may be culture specific, and which transcend cultural boundaries. The third aim is to identify variations in network function that affect the academic and social competence of the child.

METHOD: The sample included 320 African-American, Hispanic-American, and Anglo-American public school children, in grades 1-2, 4-5, and 8-9, of lower to middle socioeconomic status. Of these, 49 children were reinterviewed one to two weeks after the

initial interview to establish the test-retest reliability of the social network measures. Ninety-four percent of the children's fathers and 80 % of the mothers were employed, and there were no differences in work status by grade or ethnicity. The only significant difference by grade level was that fathers were more likely to be present in the homes of younger children. For the adolescent group, 53% of the fathers were absent from the home. Father absence did not differ significantly by ethnicity, but mothers were somewhat less likely to be present in African-American homes. African-American children were also more likely to report that their parents had been divorced within the last year. Both African- and Hispanic-American children were more likely to have been born outside the United States, and to have moved in the past year. The school population, in general, reflected the ethnic make-up of the South Florida area.

The students were interviewed individually at school by one of nine interviewers matched to the child according to cultural background. Teachers completed rating forms for each child, and returned them to the school office. The modified Children's Network Mapping Procedure consists of asking children to place people in their lives in one of three embedded circles. They were asked to place in the inner circle those who "were most close and important - those who love them the most and who they love the most." The middle and outer circles were for those who were still important, but not as much as those in the inner circle. The name of each person was written on a sticker and placed in the diagram. Once the network mapping was completed, the child was asked to point to those persons who provide each of six support functions. Specifically, children were asked to point to people to whom they could talk about important things, who make them feel better when they are bothered or unsure, who would take care of them if they were sick, who like to be with them and do fun things with them, who help with school work, and who make them feel special or good about themselves. The children were also asked who most often performed the function, and two visual scales were administered to assess the quality of support (availability and satisfaction) provided by the most frequent provider for each function. Information was then obtained about the role relation of each network member to the child. The network measures were reliable across a two week time period (Levitt, Guacci, & Ordoqui, 1991).

Emotional well-being measures included the Loneliness Scale (Asher, Hymel & Renshaw, 1984) and the Self-Concept Scale (Harter, 1983). The Harter scale is not appropriate for younger children, and was not used with first and second graders. We are reporting here the results for the academic self-concept component of the scales. The teacher-rated scale of competence in the school setting consisted of four items addressing the child's ability to get along with others, effort in school work, conduct in school, and mood.

RESULTS: Our first analyses have addressed differences in network structure and function across grade levels and ethnic groupings. The results reflect the significance of close family relations across age, an increase in involvement with extended family in middle childhood, and the emergent role of peers as support providers in adolescence. Children in grades 4-5 reported larger networks than did younger children. The increase in network size at this age is largely attributable to the addition of extended family members. The number of friends in the network increased significantly at adolescence. The amount of support provided by close family members, other family members, and friends across grade levels was mapped. Support was provided mostly by close family members regardless of age, but support from friends increased markedly in early adolescence. These findings replicate across ethnicity and parallel those obtained previously from a private school sample (Levitt, Guacci, & Ordoqui, 1991). The consistency of these results suggests that the observed pattern represents a normative developmental trend. We do find some differences across cultural groups in support provided by specific relations within the close family category. Anglo-American children report more support from parents and African-American children report higher levels of support from siblings. There was an interaction effect with regard to support from grandparents. African-American children were likely to receive more support from grandparents in grades 1 and 2, but less support from grandparents in grades 8 and 9, compared to the other groups.

Relation of Network Support and Emotional-Academic Well-Being: The intercorrelations of the support and well-being measures are presented in Table 1. Close support here refers to support from those in the inner circle of the network; other support refers to support from those in the middle and outer circles. For the younger children, support availability was related marginally to loneliness, but there were no other effects. The support measures are related to academic self-concept in grades 4-5, and to both loneliness and self-concept in grades 8-9. Teacher rated competence is related to loneliness in grade 1-2, and to self-concept in the later grades. Thus, there appears to be an indirect association between teacher ratings and support, mediated by loneliness and academic self-concept.

Some direct links between support and competence can be observed with regard to specific relationships. Support from the father is related to teacher ratings for children in the lower grades, and support from grandparents is related to teacher ratings for 8th and 9th graders. Preliminary analyses by ethnicity suggest that paternal support is linked to competence for all ethnic groupings in grades 1-2, and for Anglo- ($r = .35$, $p < .05$) and Hispanic- ($r = .37$, $p < .05$)) American children in grades 4-5. The relation between grandparent support and competence in grades 8-9 is accounted for primarily by those in the African-American group ($r = .40$, $p < .01$). In general, preliminary analyses indicate that support is related to well-being for all groups, but support may be derived from different sources within each group. However, given the diversity of cultures represented not only across, but within, our ethnic groupings, these results are tentative.

Table 1. SUPPORT AND WELL-BEING BY GRADE

	Grades 1-2			Grades 4-5			Grades 8-9		
	Lonely	Self	Teacher	Lonely	Self	Teacher	Lonely	Self	Teacher
Close Support	-.04		.14	-.07	.30**	.16+	-.28**	.20*	.14
Other Support	-.08		.07	-.02	.21*	.10	-.22*	.14	.06
Support Availability	-.16+		-.01	-.07	.16+	.13	-.20*	.15	.01
Support Satisfaction	-.15		-.03	-.07	.22*	.13	-.15	.00	.13
Loneliness			-.24*		-.38***	-.17+		-.28**	-.14
Academic Self						.41***			.44***

+p < .10. *p < .05. **p < .01. ***p < .001.

DISCUSSION: In conclusion, our results suggest that children's social networks have normative features that transcend ethnic boundaries. These include the presence of close family support at all ages, greater involvement with extended family members in middle childhood, and significant changes in perceived support from peers at adolescence. The extent to which children derive support from specific family members, however, may differ across ethnic groups. Social support appears to have both direct effects on teacher-rated competence and indirect effects mediated by the relation between social support, loneliness, and self-concept.

Further analyses of the present sample will address the links between support and objective achievement measures, and will explore the significance of individual departures from the normative patterns observed in these analyses. We are also developing social network measures appropriate for preschool children. Data from the present project will then be considered together with the results of the preschool project in light of our long range goal, which is to identify early those children who are at risk educationally and emotionally because they lack an adequate support system.

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Predicting Family Adjustment to Children with Disabilities: The Importance of Religion

Laraine Masters Glidden, Michael J. Kiphart, Jennifer Willoughby

From a position of relative neglect only a decade ago, family research has emerged as a major focus of interest to social scientists working in the field of developmental disabilities (Glidden, 1989a). Commonly, this research attempts to determine which of a number of family, parent and child variables related to overall adjustment. Usually some variation of a model of stress, coping, and adjustment is described and used to interpret findings (McCubbin & Patterson, 1983; Crnic, Friedrich, & Greenberg, 1983). Many models emphasize cognitive determinants and concomitants, the macro-environment in which the family lives, and the long-term results of any potential stressful event. Frequently, models incorporate parental and family systems of beliefs, commitments, and values, both religious and secular (Lazarus & Folkman, 1984).

More specifically, Glidden (1989a) proposed that when a handicapped child enters the family both existential issues and reality burdens ensue. The parents must struggle with the negative emotions of anger and fear, with loss of self-esteem, with

questions about the meaning of live, and their own ability to cope and to love. At the same time, they must deal with the realities of medical interventions, of difficult caretaking routines, of financial stress, and so on. The existential issues and reality burdens coexist and clearly influence each other. How well families deal with the realities of rearing are, in part, the result of how they resolve the existential issues. Both are affected by other variables, such as commitment to the child, preparation for the child, child characteristics relative to parent preferences, parents personal attributes, family strength and social support. These six variables have received varying attention by family researchers. Probably social support and family strength, including marital adjustment, have been the most widely investigated. It seems safe to say that families with greater social support, both within and outside the family, show better outcomes (Dunst, Trivette, & Cross, 1986; Schilling, Gilchrist, & Schninke, 1984). Similarly, families where the parents have higher marital satisfaction (Friedrich, Wilturner, & Cohen, 1985), where there is greater family strength (Abbott & Meredith, 1986; Trivette, Dunst, Deal, Hamer, & Propst, 1991), and where the family style is characterized by cohesion and harmony (Mink, 1986; Trute, 1990) show better adjustment.

Within the field of developmental disabilities and family adjustment, only occasionally have personal parental attributes being examined as predictor variables. One of the attributes that has received more than passing attention is religiosity. However, the results with regard to how religiosity affects adaptation and adjustment are mixed. Some studies have found that greater religious spirituality results in less stress (Fewell, 1986; Nihira, Meyers, & Mink, 1983), whereas others have not (Friedrich, 1979; Friedrich et al., 1985). Undoubtedly, some of these contradictory findings are the result of the use of different religiosity measures as well as different outcome measures.

In addition to the six variables listed above, an important determinant of the final outcome must be the way the child enters the family. For example, families who voluntarily choose to rear a disabled child by knowingly adopting the child are unlikely to suffer existential crises. They should, therefore, show better outcomes than comparable birth families, in part because they did not have to experience and resolve the existential crises that are typically part of the birth parent experience. These adoptive families, then, provide an interesting vehicle for disentangling the effects of existential and reality burdens from one another. They also establish a kind of optimal outcome comparison group against which birth families may be compared.

Earlier research on adoptive families demonstrated primarily positive family adjustment to the child with developmental disabilities (Glidden, 1986, 1989b; Glidden & Pursley, 1989; Glidden, Valliere, & Herbert, 1988). Both the original study and its three-year follow-up confirmed out hypothesis that families who had voluntarily chosen to rear children with developmental disabilities would adjust well to the task. In addition, several characteristics of these adoptive families provided important clues as to what variables might be important for predicting good adjustment. Specifically, as a group, the adoptive families had extensive familiarity and experience with handicaps prior to the child's entrance into the family. In only 14% of the families, neither parent had more than minimal knowledge or experience of handicapping conditions. In many of the remaining 86% of families, the experience was extensive, including rearing other children with disabilities, or working professionally with disabled individuals. In addition to their experience with handicap, a set of beliefs, commitments, and attitudes typified these families.

The current study, growing out of the earlier work, compares adoptive and birth families, each of whom was rearing at least one child with a diagnosis of developmental disability or at risk for developmental disability. Its aims included the replication of the adoption study, but with a larger sample, and the identification of important variables that predicted long-term adjustment.

METHOD: A sample of 87 adoptive and 85 birth families was equated on a number of assumed-to-be important characteristics, but did differ in maternal and paternal age, as well as in the number of non-target children in the family. The parental age differences stemmed from the decision to equate for target child age. Adoptive parents with children of a certain age are, as a group, older than the corresponding birth parents. Adoptive parents frequently either complete their biological families before they decide to adopt, or attempt to have birth children before they opt for adoption as a method of family formation or completion. The difference in number of non-target children in the families also reflects an essential difference between adoptive and birth families. Many adoptive families are large families. In fact, 17% of the adoptive families in this sample had seven or more children in addition to the target children; none of the birth families was that large. In addition to the matching on family characteristics, child characteristics were also approximately matched. There were no significant differences between birth and adoptive target children on age at interview, level of functioning, or gender distribution. Because adoptions were sometimes transracial (Caucasian parents adopting children of other races), there are significantly more minority adoptive than birth children, despite the equation of the adoptive and birth parents on ethnicity.

At least one parent (primary caretaker) from each family was interviewed. The interview was semi-structured, with sections on parent background, initial adjustment, and long-term adjustment for both adoptive and birth parent respondents. For adoptive parents, the interview also explored pre-adoption motivation and the adoption process. For birth parents, there was extensive exploration of the initial discovery of the disability and the family reaction to it. Embedded in the interview were a number of questionnaires, two of which are relevant to this paper: the Beck Depression Inventory (BDI - Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and a religiosity scale adapted from the one used by Fewell (1986). Each respondent completed the BDI twice during the semi-structured interview. The first administration was in the initial portion of the interview when the original placement (for adoptive families) or diagnosis (for birth families) is discussed. Respondents were asked to complete the BDI retrospectively for the

weeks right after this event. The second administration was toward the end of the interview, and respondents were asked to complete the BDI for how they were feeling then. The average time between the placement/diagnosis and the interview was five years.

The religiosity measure consisted of two six-item instruments administered as a combined questionnaire. Each item is in a 6-point (0 to 5) Likert format. One of the religiosity scales reflects the strength of personal beliefs and faith, and the other measures the degree of participation in and perceived support from religious organizations.

In addition to the semi-structured interview, each parent was asked to complete three questionnaires, sent by mail prior to the interview: a 102-item version of the QRS (Holroyd, 1985); the Family Strengths Inventory (Olsen, McCubbin, Barnes, Larsen, Muxen, & Wilson, 1985); and the Locke-Wallace Marital Adjustment Test (Locke & Wallace, 1959).

RESULTS: Analysis of responses to the BDI showed that depression scores were initially high for birth mothers, but not for adoptive mothers. However, over time, birth mothers adjusted, being no more depressed than adoptive mothers at the time of interview ($F = 92.1$, $df = 1, 167$, $p < .001$).

The difference in severity of initial existential crisis is corroborated by an independent rating of the existential concerns. This rating, hereafter referred to as total existential crisis, could range from 2 to 10, with low scores indicating rapid adjustment to and acceptance of the child, and high scores, the reverse. Birth mothers scored significantly higher ($\bar{x} = 4.5$) on this measure than did adoptive mothers ($\bar{x} = 3.0$; $t = 6.15$, $df = 168$, $p < .001$). Although the BDI scores showed no differences in current functioning between birth and adoptive mothers, other measures did. For example, a comparison of scores on the Holroyd QRS-Friedrich Short Form, showed better functioning for adoptive mothers on 3 of the 11 scales, as well as significant differences in favor of adoptive mothers on the Family Strengths Inventory and the Marital Adjustment Test. Finally, we compared adoptive and birth mothers on the two religiosity measures. Spirituality scores were high and not significantly different for adoptive ($\bar{x} = 24.0$) and birth mothers ($\bar{x} = 22.9$). The organized religion measure, however, did differentiate between adoptive ($\bar{x} = 16.4$) and birth ($\bar{x} = 13.4$) mothers ($t = 2.5$, $df = 167$, $p < .01$).

As predicted, adoptive families appeared to be better adjusted than did birth families. However, it is important to note that there was substantial overlap between the scores of the two samples on many variables, and that no significant differences emerged on some scales where they might have been expected, e.g., the Family Disharmony and Lack of Personal Reward scales of the Holroyd-QRS.

Two sets of stepwise regression analyses, one for birth mothers and one for adoptive mothers, were performed on selected factors of different versions of the Holroyd-QRS. Factors were chosen that primarily tapped family and parental functioning. In order not to prove the obvious, we specifically avoided choosing predictor variables that represented significant content overlap with the outcome variables. The variables selected consisted of two measures reflecting initial existential crises, *viz.*, initial BDI and total existential crisis scores; one child variable -- level of functioning -- assumed to be a current stressor; and five variables that we predicted might buffer or exacerbate the impact of the child *viz.*, maternal education, family income, maternal current marital status, and the two measures of religiosity.

Of the results of eight stepwise regression analyses, three very important findings should be noted. First, only two variables significantly predict outcomes in more than one equation. These are BDI scores and degree of participation in and support derived from religious organizations. Second, the pattern of findings is quite different for adoptive and birth families. In only one of the eight equations did the same variable emerge as a predictor for these two samples: BDI scores were predictive of functioning on the Parent and Family Problems factor of the Holroyd QRS-Friedich Short-Form for both birth and adoptive families. Third, demographic factors, such as family income, maternal education, marital status, and child functioning level, were not generally good predictors of outcomes. This was especially true for birth families where only one of these four variables was significant in one of the four regression equations.

DISCUSSION: The composite pictures of adoptive and birth families with children with developmental disabilities share some features, but are also quite distinct. Substantial differences are seen on some QRS scales, on the Family Strengths Inventory, and on the Marital Adjustment Test. These differences occurred primarily because adoptive mothers scored quite a bit higher than average as indicated by norms and the results of previous studies. This very positive portrait for adoptive families confirms that rearing a child with a developmental disability does not condemn a family to crisis and pathology.

Perhaps the most interesting differences between birth and adoptive families were in the results of the regression analyses. For birth, but not adoptive, parents, participation in and support derived from religious organizations was the only measure that predicted more than one outcome variable. It is important to note that the effect of religion did not mean that birth parents were more religious than adoptive parents. The interpretation of the relationship between religiosity and long-term adjustment is not a simple one, and there are many possible explanations for the effect. For example, religious beliefs and activities may act as a buffer for families, providing both spiritual and social supports. A person's beliefs can and do provide a context and a meaning for interpreting life events (Weisner, Beizer, & Stolze, 1991). Furthermore, people involved with a religious group may feel a sense of community and caring that bolsters them in times of stress. The present results would suggest that religious activities were more important than religious beliefs, but this conclusion is not yet warranted. It is possible that the religious spirituality variable was not predictive of

adjustment because of the high scores obtained by most parents. Clearly, the present findings indicate that we need to focus more attention on religiosity, determine its important components, and begin to explore how it might act as a buffer in ameliorating stress and perhaps operate as a method of coping.

Finally, initial depression and existential crisis was more predictive of outcome for adoptive mothers than for birth mothers. Either BDI or total existential crisis scores were significant in three of four regression equations for adoptive mothers, but in only one for birth mothers. This finding is potentially important information for adoption placement practice, suggesting that troubles early in the placement do not necessarily disappear, but are predictive of continuing difficulties in adjustment.

In conclusion, the results of this research suggest that the way a disabled child enters a family is an important component in determining how that family adjusts to the child. The family's initial reaction to that child is predictive of later functioning, especially for adoptive families. Furthermore, for birth families, greater participation in and support from religious organizations is related to better adjustment. Whether this relationship is mediated by relatively enduring personality characteristics associated with religious participation or by social support gained through church membership is still unknown, but should be explored in future research.

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Discussion *Cleopatra Caldwell*

When I was asked to be the discussant for this panel, I answered very quickly, thinking that family support research should all fit together in a nice, neat package. Then I looked at the varied topics that we have heard this morning and thought, "What in the world do they all have in common other than looking at what helps families?" While reading each paper, however, a persistent pattern began to emerge. In the early days of social support research we were fascinated to find that when asked, "Who do you go to for help with a specific problem?" for all ethnic groups, but particularly for African-American and Hispanics, the use of informal social support in problem-solving was evident. Today, we use sophisticated methods for finding out a lot of information about the structure and characteristics of these networks, but we still need to do a lot more work in understanding the quality of and satisfaction with the support that social networks provide. All of the papers further illustrate the importance of this need within a cultural or situational context.

From the Wilson paper we have learned that the presence of other adults in the household had a negative impact on the parental satisfaction for a sample of African-American Mothers. From the Levitt study we found that not all network members are perceived by children of various ages and ethnic backgrounds to be helpful. From the Masters paper we heard that social support derived from religious organizations predicts adjustment outcomes for birth families with disabled children but not for adoptive families,

and from the Caldwell paper we saw that Black churches are providing a lot of programs to help families, but we know nothing of the quality of those programs. The burning question that remains is: "Under what conditions will perceived quality of and satisfaction with support from naturally occurring social network members have positive or negative effects on well-being outcomes?" From an intervention or prevention perspective, Debra Coats (1990) and others have asked: "Can network members play a major role in the implementation of interventions or must they be a focus of the intervention?"

Individually, each paper provides us with more important information on family support systems and raises more questions than it answers. However, collectively, we can begin to see patterns of family support that may be important to consider in future research and in our intervention efforts. For example, the Wilson and Levitt studies emphasize the importance of the extended family system as related to well-being or competence outcomes for minority families and children. They also allow for the influence of differential developmental changes that occur across childhood age groups.

In the Wilson study, I was intrigued with the inverse relationship found between presence of other adults in the household and parenting satisfaction. This suggests that we need to know more about the quality of support provided by these "other adults." In terms of research, it would be interesting to replicate this study examining the affects of other adults in the home and other adults outside the home on parenting satisfaction, and, of course, determine why support from other adults is or is not helpful for African-American mothers. In terms of practice, it is important for helping professionals to note the diversity of family structures when working with African-American families.

The Levitt study found that social support is related to academic and social well-being for all groups or children, but support may be derived from different sources within each ethnic group. For example, Anglo children reported more support from parents than minority children. The authors suggested that parental availability may be less important among minorities as long as other supportive kin such as siblings or grandparents are available for younger children. These findings are very important for helping professionals who frequently target parents in prevention and intervention efforts. As the Levitt study has demonstrated, parents may not always be the most important or most effective network member to bring about the desired outcomes in children at various developmental stages.

Just recently, I was in an advisory committee meeting for a minority oral health improvement program. This project is designed to develop intervention programs aimed at African-American and Hispanic first graders. Although children were the primary target population, parents were initially the secondary target for the intervention. However, after extensive discussions, we were able to expand the secondary target population to families, emphasizing the importance of siblings and grandparents in the social networks of minority children. The Levitt study also reminds us that social network research on children lags far behind that of adults. We may conclude that better assessment tools are needed for social network research for young children. In addition, helping professionals must analyze network data to determine who is in the best position to provide needed support at different stages of development for children. Helping professionals simply must look beyond parents as always the most important network members when trying to effect changes with children, especially with minority populations.

In a similar vein, the Glidden and Caldwell studies show the importance of institutional supports through organized religion. The Glidden study found that adoptive families adjusted to having a disabled child better than birth families, and that support derived from religious organizations predicted adjustment outcomes for birth families but not for adoptive families. They also found that initial adjustment was predictive of later adjustment for families with a disabled child five years later. To give an example of what I am talking about, through the course of working with the Black Church Family Project, I met the minister of Mendenhall Ministries, which is in a rural Mississippi community. He shared with me the rationale behind the large thrift store that his church now operates. It seems that he observed that some community residents in need were not coming to the church to get clothing that was being given away. It soon became clear that these residents viewed these offerings as handouts and they did not want a handout. It was not until the church opened the thrift store, where nominal costs were associated with items -- like $5 for a good winter coat -- that the full potential of their clothing distribution efforts was realized. The new goal of all of this church's outreach efforts is not to strip the recipients of their pride, self-esteem, or self-determination and make them dependent on the church. Rather, the church wants to empower recipients to continue to be responsible for their families' needs while the church provides them with affordable goods and services. The thrift store is also being used to provide jobs and to teach people how to run a business. The major implications from this research are that additional research is needed to determine exactly how and why churches are assisting families. The quality of these services also needs to be evaluated. The results of this effort should be the development of model programs that may be duplicated in other churches. In addition, collaborative working relationships between Black churches and social service institutions should be fostered to provide services to hard-to-reach populations and for long-term service delivery.

In conclusion, the collective results of these studies provide reasons for optimism. In the past, most research on minorities focused on low-income populations without much regard for family diversity or the cultural context that existed. The Wilson and Levitt papers specifically address family diversity by including extended family structures in their research. The Glidden and Caldwell studies have highlighted the importance of institutional supports to families, regardless of the type of problem they are coping with. By examining social network influences, all of the studies focus on the concept of social support rather than on individual coping strategies. The next step seems to be to determine why specific components of a given social network are or are not effective for facilitating the well-being of all major ethnic groups.

The same questions that Wade Horn, Commissioner for the Administration on Children, Youth and Families, raised about future research on Head Start programs can also be asked of the future of social support research. Specifically, which social supports work best, for whom, and under what conditions? It is our job as researchers and Head Start professionals to try to answer these questions for the good of all families.

LARAINE GLIDDEN: I want to thank Cleo Caldwell for emphasizing an important finding in my study that I did not have time to emphasize, namely, the relationship between initial adjustment and long-term adjustment. She is absolutely correct that, for both adoptive and birth families, how mothers reacted initially to the diagnosis in the case of birth families or the entry of the adopted child into the family for adoptive mothers was predictive of adjustment five years later. As a slight elaboration of that finding, what our interviews demonstrated over and over and over again is that parental perception of the formal support systems was frequently negative, both for birth and adoptive families. I find this fact particularly compelling for adoptive families, because they were families who were sophisticated about the social services system. They had, of course, had to interface with it in the adoption process. They received pre-placement services and limited post-placement services, and yet when they turned to a different set of agencies for support they found themselves frequently having to play an adversarial and advocacy role for their child, which was frustrating and frequently embittering for them. We have informally coded those data, but we have read narrative descriptions of this point, and I think it is going to be compelling information.

AUDIENCE DISCUSSION

Audience discussion focused first on the study of adoptive and birth families of children with disabilities. It was noted that families' experiences with the formal support system often were negative and that families may remain where good programs exist, thereby affecting parents' decisions about where to live and where to work. An audience member asked what the major differences were between birth and adoptive families. According to the panelist, the adoptive families tended to be better adjusted, but this may be somewhat misleading since they are a highly self-selected group. If one controls for initial psychological characteristics, birth families look very much like adoptive ones.

Recruitment of families for the study also was an audience concern. Adoptive families were recruited through their adoption agencies. Birth families were identified through adoptive families (who were asked to nominate a family like themselves), through parent groups and through schools. The importance of trying to disentangle the effects on family functioning of having a child with disabilities, from family functioning as a predictor of adjustment following the entry of a child with disabilities, was also discussed. While prospective data are ideal for dealing with this problem, very large samples are necessary for locating those families who will experience a rare event like a child born with disabilities. Such studies are prohibitively expensive. Instead, it was suggested that one could aggregate families over studies, as a way of developing appropriate samples.

There also was some discussion of the study of Black churches. It was noted that, even with the separation of Church and State, one might be able to ask families if they have a church affiliation or if there is a church located in their neighborhood, as a way of encouraging their utilization of these resources. The question was raised of how the linkage of Black churches with other mainstream institutions could be promoted. According to the panelists, many of the Black churches studied had working relationships with other institutions such as the prison system, transportation departments, and welfare departments. Because the first part of the study was aimed at describing what existed, how these linkages occurred was not explored. An important question raised by the audience was how professionals could help facilitate the use of informal individual, familial and community networks. In the panelist's view, the key question was whether professionals provide direct services, the usual model of service, or whether professionals activate existing networks. There is a need to learn when formal systems and services are appropriate and when informal systems can be more effective.

Panel 105 NEW EVIDENCE FOR THE EFFECTIVENESS OF DEVELOPMENTAL SCREENING

Chair/Discussant: **Samuel J. Meisels**

Overview of Research on the Early Screening Inventory *Samuel J. Meisels*

The three people who are joining me are Kim Browning, Fong-ruey Liaw, also called Tina Liaw, and Laura Henderson. All three are advanced doctoral students at the University of Michigan. They are going to tell you about the work that they have been doing with the Early Screening Inventory. I am going to begin with a brief introduction to developmental screening and readiness testing, and some general information about previous research that has been done with the ESI, the Early Screening Inventory.

Too much testing is taking place. This is a picture of the test chasm. It shows this one little boy looking over the edge for his friend, who got lost in the test chasm. I always begin with something like this, and then I have to spend the rest of the time convincing people that I am actually not just a test basher. And the fact remains that we are going to tell you about a test that I have been working on for more than 10 years, so clearly I have some strong positive feelings about tests as well. But there are some uses of

tests that I find very problematic. The most problematic use is the use of tests for what we call "high-stakes" purposes, where tests are linked directly to decisions regarding promotion or retention, where they are used to evaluate or reward teachers or administrators, affect the allocation of resources to school districts, and result ultimately in changes in the curriculum. The most well known high-stakes test in our culture is the SAT, of course, and high-stakes tests are the key that unlocks the door to accountability for many, many people. We see high-stakes testing all the time in early childhood. We see it when children are given readiness tests at the outset of school and then are not permitted to enter a school -- their parents are told to keep their children out of school for a year. We see high-stakes tests in use in early childhood when children are tested at the outset and are placed in developmental kindergartens or other transitional programs, which turns out to be a retention. We see it particularly, in fact, when kids are retained in kindergarten or first grade based on the very spotty evidence from tests, which are not validated for that purpose.

We saw this kind of testing very extensively in the state of Georgia in 1987, 1988, and 1989 when a state law that was passed there required that all children pass a modified version of the CAT, the California Achievement Test. More than 8% of the children who took the CAT were retained, and an additional 3.5% to 4% of children overall were retained, so that more than 12% of the 90,000-plus children in kindergarten in Georgia in 1988-89 were failed and retained in kindergarten. There was such a furor raised that the state backtracked -- I am very pleased to say -- changed their position on that, and created a more reasonable assessment. That was just one very dramatic example of high-stakes testing in a state situation. That is one type of high-stakes test, and it is not what we are going to be focusing on. I need to tell you what we are and are not doing. What we are going to be focusing on is developmental screening. Developmental screening has some of the marks of high-stakes testing in that very important decisions are based on developmental screening instruments. But developmental screening is not an isolated event from which an important decision is made. Instead, it is part of a process of assessment, part of a process of intervention, so that errors that are implicit in that assessment have a better chance of being corrected.

This is the definition of developmental screening. It is a brief assessment to identify children who, because of a possible learning problem or handicapping condition, should receive more intensive diagnostic assessment. More accurately, it is going to identify those who are likely to be at high risk for school failure. Therefore, we have to get more information to confirm that indeed they are at very high risk, and something should be done about it. Developmental screening information can be indicative of a problem, but it is not definitive of a problem. It is very, very important that we keep that in mind, that there are limited purposes. Those purposes are extremely important, they are preventive purposes. They are saying, let's find problems in children at an early point, before they can have pervasive effects on children, and let's find those problems so that we can do something about it quickly.

Screening is not the same thing as school-readiness testing. School-readiness tests will not serve the same purpose as developmental screening instruments. Screening is also not the same thing as a diagnostic assessment or a developmental evaluation. The diagnostic assessment is much more comprehensive. The diagnostic assessment is part, or the diagnostic evaluation is part, of the definitive type of assessment that needs to come after developmental screening, but it is not the same thing. Developmental screening is also not the same thing as classroom assessment. It does not give us nearly enough information to constitute a good documentation of what takes place in the classroom. Then, certainly, developmental screening is not an achievement test. It does not tell us directly about what a child has learned. It does tell us about a child's potential for acquiring skills. The potential is still very great.

If we are going to try to build a better developmental screening instrument, what would those characteristics look like? These are what I consider to be core characteristics of a developmental screening instrument. The instrument must be brief, and that means if we talk about 4- and 5-year-olds, that it should take about 15 to 20 minutes to administer. If we are dealing with 3-year-olds, it will take longer to administer a roughly comparable screening assessment. It will take between 20 and 30 minutes. It needs to be efficient, which is an indicator of time, energy, training, and cost in terms of money as well as in terms of what it takes out of people to administer it and out of children and families to have it administered to them. It needs to be cheap, to be low-cost. Why is that so important? Because this is a phenomenon that is administered, or that takes place, if it does it the right way, with everyone in the entire population, the entire school population. And yet, only about 5% to 7% of the children who are screened in a general population, with a valid and reliable developmental screening instrument, will score positive, which is to say that they will be at risk and should be referred for another more intensive evaluation. Given the fact that more than 90% of the children will not be at risk, it is very important that what we do is efficient, and that it be low-cost. It needs to be standardized in administration because it is not a clinical assessment but is something, again, that goes across the entire population, which means that many different people will be administering the same instrument to different children in different settings. That means we have to have something that is the same so we know that we are getting similar information. Similarly, we need to have it be objectively scored, so that we can compare that information, share it, and obtain norms on it. It should have a broad focus, rather than being an assessment, for example, of receptive language only, or of general knowledge. It should be an assessment screening across motor development, fine and gross; across expressive and receptive language; perceptual motor affect; reasoning, memory and so forth. It should have a developmental content rather than a content that is more focused on school-readiness tasks or on those tasks that show a child's achievements or accomplishments. It needs to be reliable, which is to say that it is consistent. And it needs to be valid, which is to say that it is accurate or believable. It also needs to have available to us sensitivity and specificity information. We will also discuss fine points about the rate

at which children who are at risk are correctly identified, and the rate at which children who are not at risk are correctly excluded from any further evaluation.

These are the key characteristics for building a good developmental screening instrument. I have translated these into criteria for the selection of developmental screening instruments. The first criterion, therefore -- if I were going to say, here is a group of developmental screening instruments, how do I know which one is one that I should consider -- would need to meet these four criteria. First, it should meet my definition, be a brief procedure designed to identify children who may have a learning problem or handicapping condition that could affect their overall potential for success in school. Second, it needs to primarily sample the domain of developmental tasks rather than the domain of specific accomplishments that indicate school readiness. Third, it needs to focus on the wide range of development rather than on one or two areas of development. And finally, I would look for classificational data concerning the reliability and validity of the instrument. Classificational data has to do with sensitivity and specificity, and allows us not just to have a correlation, which is very, very difficult to interpret, but very specifically will show us the rate at which the test over-refers and the rate at which it under-refers. Those psychometric properties are terribly important here. Those kinds of psychometric properties, those classical psychometric properties, are not terribly significant in that type of assessment. They are highly significant in a high-stakes selection instrument like this.

What are some of the developmental screening instruments that are available? I have a short list, and this is not a list that meets my criteria in every case. 1) the Early Screening Inventory (ESI). The ESI is the test that we are going to be telling you about. Another test is the McCarthy Screening Test. They took six subtests from the McCarthy Scales of Children's Abilities for this screening test. It is a "brief McCarthy." There is also the Developmental Indicators for the Assessment of Learning Revised (DIAL/R), which is a very well-known test. 2) The Denver Developmental Screening Test (DDST) -- it is the most widely used developmental screening test in all known galaxies. It is a test that has an extremely severe problem of under-referring children at high risk. I have published on this extensively; others have published on this extensively. It is a test that if you want to identify children at risk you should not use, unless you do not use it according to the standards of the instrument. 3) The Miller Assessment for Preschoolers is a more recent addition to the list, and barely makes it under the category of developmental screening. It is somewhere between almost developmental screening and a more full-scale assessment. There are several other developmental screening instruments that are in use that I have not included here. I am not here trying to give you a complete overview of these instruments. Our purpose today is not to review all screening tests but just to give you this clear picture of where screening fits into the assessment picture.

Let me go on now briefly and just distinguish a little more clearly readiness tests from developmental screening tests. Readiness tests focus on children's current skill acquisition; developmental screening tests focus on children's ability or potential to acquire skills. Readiness tests are used for class placement, for curriculum planning, and for identifying a child's relative preparedness to benefit from a program. What are some well-known readiness tests? They are things like the BANE test of basic concepts, Briggance Inventory, California, the CAT, CIRCUS and the CSAB, First Grade Screening Test, Metropolitan Readiness Test, Preschool Inventory. I consider these to be readiness tests rather than developmental screening tests. It is very important for us to make the distinction between developmental screening and readiness tests, but before doing that I would like to take a minute and look specifically at the kinds of items that you will find on a developmental screening test as contrasted to a readiness test. That is one of the distinctions between them; there are other distinctions that are important, too. Under Visual Motor Adaptive Skills we are looking at fine motor control, eye-hand coordination, memory for visual sequences, for forms and for structures. So what are the things that we do? We have a draw-a-person task, we have copy forms of a circle, cross, square, and triangle, and then we have a visual sequential memory task, and then block building at various levels of complexity. We also have language and cognition items, which include comprehension, expression, and articulation, ability to reason, count, remember, and repeat auditory sequences, and again, those items are seen on pages 3-5 of the ESI scoresheet. They include number concept, counting but not rote counting, and asking the child after he/she has counted, "How many altogether?" They include opportunity for the child to talk about several common objects, like a ball, button, block, and car, and then their expressive responses are coded according to several different categories. We have verbal reasoning items here, and auditory sequential memory items. And then, finally, we have gross motor body-awareness items, which include such things as balancing, imitating movements that are first shown by the examiner, hopping, and skipping. These constitute very straightforward types of responses that we are asking from 4- and 5-year-old children. The instrument does have an extensive manual, and we have quite a bit of research that we are going to tell you about. These items, if you will look at them, and if you know other screening instruments, or you know developmental assessments, you say, well, that is pretty familiar. There is nothing here that is terribly new. And you would be right, and I feel that I would be successful if that is the case, and it is the case.

When my colleague Stone Muskie and I went about the process many years ago of beginning to develop this screening instrument, it was in 1975 in Massachusetts, when that state passed a comprehensive special education bill that required developmental screening to be administered to children in kindergarten. At that time, in 1975, there were no developmental screening instruments that were nationally available, except the Denver. And when I looked at the Denver I was convinced right away that this would not discriminate well for 4- and 5-year-olds, and therefore I began this process. But I did not want to come up with something idiosyncratic. I wanted to come up with something that was rather modest, that would simply do that thing of discriminating those at high risk from those who are at low risk. And these are the kinds of items that over many years and much effort we have arrived at.

Now, how do these items differ from the items on a readiness test? The items you see here are from the Briggance Kindergarten and First Grade Screening Test. These are the basic subtests of the Briggance K and One Assessment, and I selected it not entirely randomly, I selected it because Briggance is widely used. What kinds of things does it ask contrasted to what you see in the ESI? It asks for personal data. First name, full name, age, address, birth date. Each of those is scored. That is sometimes a problem. Now, you think a 5-year-old should know his address, right? But many 5-year-olds may have just been moved, they have moved at that time, especially right before school. I have seen many instances like that. There are times when a parent barely knows his or her address, let alone the child. Color recognition. Now, this I would say is something that if you have not been taught you are not going to know. And that is not something that is an assessment of a developmental aspect. Picture vocabulary -- again, you need to have had some exposure to the particular pictures that are shown. Visual discrimination is a very limited series of symbols. Visual motor skills are similar to our copy forms, but is only one element of what we do much more extensively. The gross motor skills are also more limited than what we do. Rote counting, identifying body parts, following verbal directions -- many of these things that you see here are in fact very, very verbally mediated. Children who are not from homes where there is a great deal of talking going on and a great deal of expression of ideas through words will not do well on this. But that does not mean that they necessarily should go to special education or to a special program. What it means is that what they most need to do is go to kindergarten, and in kindergarten they will get that kind of exposure. That is one of the problems with using readiness tests for developmental screening purposes.

Here is another example from a readiness test. This is from a test by Lasiac called the Developmental Test for Kindergarten Readiness. These are the social interaction readiness items. Each one is scored. What is your name? Won't you have a seat? How are you? How old are you? When is your birthday? Where do you live? Would you mind moving your chair closer? I have something I want to show you. Well, now, this to me is not exactly an assessment of enduring developmental characteristics. It is more like an Emily Post etiquette exam, and there are plenty of mornings when I know I would have trouble passing this. But that is the sort of thing that is used in a high-stakes manner to place children in certain programs. And that is extremely troubling to me. Before you are able to do that sort of thing, you need to have predictive validity data that show that in fact those children who do poorly on this will do poorly over the course of that year, as measured by something else that is known to be a valid criterion. The fact is that when we look at data from readiness and developmental screening, and look at that compared to school performance, we see something very interesting. Developmental screening has a very high correlation with developmental assessment, if the developmental screening is a valid and reliable developmental screening. The developmental assessments have a strong relation to school performance, but not as strong as the relationship from developmental screening to school performance.

There is a weak relationship between readiness tests and developmental assessment and between readiness tests and school performance. Now, in a sense, that is counter-intuitive, because your thought might be that, well, this readiness test, as I have told you, is something that is intended to tell us about a child's relative preparedness for a particular program. So why is it, then, that readiness tests do not have very strong correlations to school performance and school success? I believe the reason is that most of the children who do not score well on readiness tests at the outset of kindergarten are able to acquire those skills during the kindergarten year. Thus, the potential of those who have high scores on readiness tests is not accurately assessed by readiness tests, and their eventual school success is not predicted simply by the entry characteristics that are documented by these instruments. That represents yet another issue, that not only are we dealing here with content that is very important, but we are also dealing with the predictive power of those instruments. Those instruments need to show that they are predictive if we are going to use them for those high-stakes purposes.

Let me close this section by reminding you about one of the more important elements of all of this, and that is the utility criterion: that testing should be used only to obtain the best and most appropriate services for the greatest number of children. When we use the wrong instrument for the right end, we are not going to get the right services for the largest number of children.

Now, let me then turn to talking about some of the early research that has been done on the ESI, then I will give you the background of our national standardization, and finally I will let my colleagues tell you more about the research we have done. The ESI was first developed in the Boston area beginning in 1975. The first studies that we completed with the ESI were on 4- and 5-year-old children. The data were collected between 1975 and 1978. Using the McCarthy Scales of Children's Ability as an outcome measure on a concurrent basis -- in other words, 10 days after the administration of the ESI, with a sample of about 100 children -- we found a very high correlation between the two instruments, of greater than .7, and very high sensitivity and specificity, which means that the instrument to a very large extent identified those children at high risk and did not identify those children who were not at risk, which is what you basically want to see happen in an instrument like that.

We also completed a longitudinal study, one of the few longitudinal studies of this instrument, looking at the relationship between the ESI administered at the outset of kindergarten and report card grades through the end of grade three. This showed that the ESI had very good predictive power, again, in terms of sensitivity and specificity, through the end of first grade. Beyond that, things got a little bit strange. But you would not expect any screening instrument really to predict longer than a year. One of the reasons for that is that all of the children in these programs, or all the children who were screened, are in an intervention. Namely, they are all in kindergarten. And what you expect because of that is that there should be more false identification than under-identification, false positives. But I will say that in any kind of a prediction like this, where children are in a program, at that point of prediction you are going to say, well, here is the group of children who are at high risk.

Your first test, as it is called here, is the screening instrument, and your second test -- and there could be things other than tests used this way --- is, let us say, something like the McCarthy. If the screening test is accurate, then you will expect to see a large number of the children who are administered both tests to be in quadrant A and quadrant D. If you over-refer, then you will have some children in B, and if you under-refer, some children will be in C. The over-referral means that the screening test predicted some children would be at risk, but when they were followed up you found out they are not at risk. The converse is that the screening test predicts that the children will be O.K. when followed up; it turns out that they are not O.K. The ESI generally under-refers very, very few children, hardly any. It does over-refer children. I think that one of the reasons it over-refers children is because all of those children are in a program, and so the longer you stretch out the period of time between prediction and outcome, the more changes will take place that are simply maturational as well as due to experience. And that is going to result in some of the children who you thought were at risk being not at risk when you come back a year later and assess them. In any case, we will talk about that in relationship to our data.

A few years ago I began a national standardization study of the ESI, because all of the norms that we had were from the Boston metropolitan area, and I wanted to have something that was obviously more general than that. So we began a program of standardization where, in more than 40 sites -- public schools, Head Start programs, and private preschool and day care -- we began to collect data on a very regularized basis. We developed training videotapes, began to train individuals to serve as trainers on site, and began this process of national standardization. More than 2,700 children were eventually included in the normative base for this standardization. They are stratified in a number of different ways. In addition to this national standardization and development of norms, we did another predictive validity study on about a 179 children, using the McCarthy as an outcome. We also developed a 3-year-old version of the instrument and a Spanish-language version for 3- through 6-year-olds. We do not have validity data yet on the 3-year-old or the Spanish version. We now have the instruments well developed, and during this coming year we expect to begin another study that will give us validity data on the 3-year-old version as well as the Spanish version. We worked on this over some time, and now are able to present to you information about the reliability, validity, and use of the Parent Questionnaire from the ESI in what I think is a very important and innovative way. I am going to stop at this point, and Kim Browning will tell you something about the national standardization sample and the reliability.

Reliability of the Early Screening Inventory *Kimberly Browning*

My goal today is twofold. First I would like to briefly provide you with an overview of the Early Screening Standardization project, including a description of the original design of the project, and a summary of what the sample actually ended up being. Second, I will summarize for you the results we have obtained from the study regarding the reliability of the ESI. This will include a brief discussion on the importance of reliability for standardized instruments, and then highlights of our findings in this particular study.

The national study was designed to establish national norms and validity data for the ESI. The project attempted to base its sample as closely as possible on the 1980 census data, and the original design of the study called for 1,440 4- to 6-year-old children to be in it. Four age groups were created in six-month intervals. We have 4.0 - 4.5 years; 4.6 - 4.11 years; so that there are six-month intervals. The design originally called for equal numbers of children in each age group, and additionally there were to be equal numbers of boys and girls, a race distribution of about 70% to 73% white, and 27% to 30% non-white, which was based on the 1980 census. We wanted equal numbers of educational accomplishments by the parents, and we based that on more or less than 12 years of school completed; whether they had completed high school and beyond or had not completed high school. Seventy percent were to be from urban communities with populations greater than 50,000, and 30% were to be from rural areas with populations less than 50,000 thousand. Also, there were to be equal numbers of children from each regional area of the country. This is what we were aiming for.

We collected our sample from 45 sites around the nation. Nine sites were Head Start programs, 24 were public schools, and the rest were a variety of for-profit, non-profit, and university settings. The actual sample ended up being much bigger. We wound up with 2,746 children. This is obviously much larger than our original intention, but we found that to achieve the goal in all age groups it was necessary to over-sample some of the older age groups to get the younger age groups. The younger ones were the hardest ones to obtain. Gender make-up was pretty close to our original goal, which was with approximately 51% female and 49% male. The ethnic representation of our sample was close to the original design of the study. We were able to achieve 66% white and 44% non-white. This compared to our original goal of 73% white and 27% to 30% non-white. We have not been able to compare this yet to the 1990 census data because we cannot get national norms yet.

In terms of educational attainment, we were unable to obtain equal numbers of educational attainment in all age groups. However, we were able to come closer on socioeconomic status. We determined our socioeconomic status using the Hollingshead Four-Factor Index of Social Status, and this method utilizes information, such as the educational attainment of the parents, their occupations, the number of children living at home. While we were unable to obtain the equal numbers in educational attainment, our overall SES ratings are actually much closer. Approximately 55% of the population was considered middle to high SES, while 45% were considered low. So we were much happier with that.

Our regional representation indicates that 730 children came from the East, 507 from the South, 723 from the Midwest, and 786 from the West. Approximately 59% were from urban communities, and 41% were from rural areas. As you can see, this is a large data set. We have a lot of information on all these children. And we have used this information to establish new cut-offs and to determine the reliability and the validity of the instrument itself. At this point I would like to switch topics and move to reliability.

In common sense terms, reliability basically means stability, predictability, dependability, or consistency, and a reliable person is somebody obviously on whom we can depend. Conversely, and also obviously, an unreliable person is someone who we cannot depend on, whose behavior we cannot predict -- it fluctuates a good deal in an unpredictable fashion. In this instance, rather than describing a person, we use reliability to describe the stability or predictability or dependability of the test or the screening device. Reliability is an indicator of how consistently or how often identical results can be obtained using the same instrument. It basically tells us how confident we can be of the scores when the instrument is used repeatedly by different examiners with different children. It is just an indispensable feature of a standardized instrument.

We performed reliability analysis to determine the extent to which fluctuations in the test results are due to chance or irrelevant factors. If the ESI were reliable, the differences in tests results would be minimal, and they would be attributable not to chance but to more systematic features of the characteristics of the child, him or herself. And there are two types of reliability that we report for the ESI. The first is inner observer or scorer reliability procedure. This occurs when an examiner and an observer each score the same performance, thus coming up with two scores for the same performance. For example, if I were giving the test to a child right here, and Laurie would be sitting over in the corner watching the same administration, she would be scoring the test as she sees it and I would be scoring the test as I see it. And the reliability coefficient, which is Cronbach's alpha, is derived from the percentage of agreement between the two people scoring the same performance.

The second type of reliability is the test-retest, or the testability procedure. In this, two different examiners administer the ESI to the same child approximately seven to ten days apart. The alphas obtained here describe the stability of the instrument over time, as well as the percentage of agreement between the two different examiners. Additionally, for both of these, the inter observer and the test-retest reliability, we obtained correlation coefficients, which indicate the strength and the directionality of the relationship between the two scores. Out of our entire sample, we were able to obtain 544 tester-observer pairs out of the original 2,746 ESIs in the study. The correlation analysis for the testers and observers showed correlations all above .98, with the correlations for the whole group above .99. And this indicates a very strong relationship between the two scores. The alphas, or the reliability coefficients, for the tester-observer pairs were equally as high -- all above .99. We were able to obtain 86 test-retest pairs from the entire sample. The correlation analysis in this instance resulted in correlations for the whole group of above .89. While the individual correlations are not as high, I think this is a result of low Ns rather than a question of the test itself, and the Ns just are not high enough to really tell anything. The reliability coefficients for the test-retest were all above .82, with an overall group coefficient of .94. This is very high.

The overall reliability of the ESI is indicated in the strong correlations in reliability coefficients obtained in this analysis. By viewing these in conjunction with each other, we can safely say that the ESI is highly stable, predictable, and a consistent screening device.

Validity of the Early Screening Inventory *Fong-ruey Liaw*

I am going to report on the validity of the ESI, that is, how accurate the ESI is in predicting children's future risk. Out of the 2,746 children that were administered the ESI, 179 children were given the McCarthy Scales of Children's Ability seven to nine months after the administration of the ESI. In order to test the accuracy of the ESI, we used the McCarthy Scales as the criterion for comparison. Out of this 179 children, approximately 74% were white. About 30, or 61%, of the children were 4-year-olds, and 39% were 5-year-olds. The sample was more or less equal in terms of gender and socioeconomic status and urban/rural residence. The majority of the sample came from the East and Midwest regions of the country. Around 79% of the mothers attained higher than a high school education.

There are four terms that I want to talk about. The first one is sensitivity, and means the proportion of children at risk who are correctly identified (named Quadrant A). That means those children who are considered at risk by the second test, which is the McCarthy Scales in our study, were identified by the first test, which is the ESI. Because this is the correct identification, we want the rates to be high. In terms of high, we think greater than or equal to .8 is quite good. The second term is the specificity, which is the proportion of children not at risk who are correctly excluded from further assessment (named Quadrant D). That means, children who are not at risk on the second test, also were O.K. on the first test. We also want that to be high because it is also the correct identification. For quadrants B and C, one is over-referral, and the reverse of it is under-referral. Of course we want these to be low, because they are incorrect identifications. We may conclude then that the ESI identifies 92% of children at risk and excludes a high proportion of children not at risk. Therefore, the ESI is really quite accurate in predicting children's risk status.

Use of a Parent Questionnaire with the Early Screening Inventory *Laura Henderson*

I will focus on the three-page Parent Questionnaire that was designed to accompany the Early Screening Inventory. Before I go into the description of the Parent Questionnaire and the utility of the measure, I would like to just review briefly why we are even looking at a parent measure. As you know, legislation has specified the inclusion of parents in the early identification of handicapped

children since the 1975 Education for All Handicapped Children Act, which you know as Public Law 94-142. More recently, Public Law 99-457 expanded the targeted population to include infants, toddlers, and preschoolers, and further encouraged parental involvement by establishing incentives at the state level to incorporate family-focused intervention. This amendment supports the rights of parents to become directly involved in their children's assessment. Besides legal reasons, the move to incorporate parents into the early identification process reflects a practical approach to the developmental screening. Most parents have multiple opportunities to view their children in a variety of situations over an extended period of time. Compared to the limitations that are imposed by a standardized testing situation, the parents' broad-based views would be expected to contribute generously to this attainment of the developmental screening goals. Despite the practical and legal reasons, however, many educators argue that parents are not child development experts, that they do not have the skills to assess the children developmentally, nor can they be expected to give unbiased responses to items that do assess development. Although it is true that studies have shown parents to over-estimate their children's abilities, some of these same studies have also shown that parents can provide accurate assessments.

We need to ask ourselves what makes sense regarding parental involvement in the Early Childhood Assessment. I believe that parents can offer valuable and helpful information that can contribute tremendously to the child's assessment. Because I believe this, I have to question the measures that we are currently using to collect this type of information. Keeping this in mind, we evaluated the validity and the reliability of the three-page Parent Questionnaire. We then determined the extent to which the Parent Questionnaire increases the accuracy of the ESI in identifying young preschoolers who may be at risk for developmental delay.

The Parent Questionnaire is a brief survey consisting of 58 items divided into five sections that request basic information about the child's family, school history, medical history, general health, and overall development. The 48 items making up the second and third pages of the Parent Questionnaire, the child development section, require the parent to respond by checking either yes, no, or don't know. Because there are fewer than 50 items to answer in this section, we have estimated it to take between roughly 5 and 10 minutes for a parent to complete. Parents at or around approximately a fourth grade reading level should be able to complete the questionnaire independent of outside assistance.

The current study with the Parent Questionnaire has two components. In the first phase, we established the most appropriate version of the Parent Questionnaire. Through several steps, we decided which items would be retained, how the scale would be scored, and which cut-offs would be most effective in classifying risk status. In the second phase, we attempted to determine the most efficient use of the Parent Questionnaire -- specifically, how to combine the Parent Questionnaire results with those of the ESI to improve the predictive validity of the screening process. In the first phase of the study, we used a subsample of children from the larger National Standardization study. This group consisted of 1,296 preschoolers whose parents completed a three-page Parent Questionnaire within 90 days of the ESI screening. None of the parent questionnaires that we used were missing more than five items. In this phase, the Parent Questionnaire was revised to represent a more concise measure for collecting parental input about the child's development. Based on correlations and factor analysis with the ESI and the McCarthy outcomes, 10 items were removed from the scale. This revised version of the Parent Questionnaire demonstrates moderate to high reliability. For all age groups it was .72. This indicates that the Parent Questionnaire maintains its internal consistency. In other words, the Parent Questionnaire items are all consistently measuring the same thing, which in this case is the child's developmental status.

We scored the Parent Questionnaire by assigning values to the remaining individual items. A value of 3 was assigned to a response, where that response was yes or no, and that suggests the possibility of delay. A 1 was assigned to a response that did not indicate that a risk was there. And a 2 was given to all "don't know" and blank items. For example, item 1 asked, "Was your child premature?" A "yes" would be scored as a 3, and a "no" would be scored as a 1. From these recorded responses, it was possible to create a total score for the entire scale by summing the responses. Because there are 38 items, the sum score for any child could range from 38-114.

Results show that the scores tend to decrease as the children get older, because younger children are not expected to perform as successfully nor as consistently as older children. Parental ratings for younger children will result in higher scores. From the continuous scores for each age group, we computed dichotomized risk classifications for the Parent Questionnaire just as were done for the ESI and for the McCarthy, using the GCI scores. In order to promote a relatively conservative referral population, we selected a cut-off score .5 standard deviations above the mean score for each age group -- the higher you go the more at risk you are considered. This cut-off point classifies a fairly large number of children as at risk, but this was done purposefully to avoid excluding any children who may be experiencing delay. We also anticipated that this cut-off would work well when we combined the Parent Questionnaire results with those of the ESI classifications.

At this point in the analysis, we merged the Parent Questionnaire risk classifications with those of the ESI in order to have a combined measure of the child's developmental risk status. This measure is inclusive in that a child is classified at risk only if referred -- considered at risk on both the Parent Questionnaire and the ESI. Using this new criterion for determining the risk status, we compared the referral rates on the combined ESI-Parent Questionnaire scale to those that were originally obtained by the ESI. For the second phase of the study, we used 90 of the 179 McCarthy children who also had the three-page Parent Questionnaire. With the McCarthy subsample, we applied classification analysis to generate the sensitivity, specificity, and false positive rates for both models predicting developmental delay which, as you know, was measured by the McCarthy outcomes. The first model included only the ESI classifications, and the second model included the combined ESI-Parent Questionnaire classifications. The specificity and false

positive rates both improve when the Parent Questionnaire is included. Specificity increases from 83% to 94%, indicating that the combined measure is correctly excluding 94% of those children who do not need additional diagnostic evaluation. Similarly, the false positive rate decreases from 70% to 50%. This indicates a decline in the number of children who are incorrectly referred by the screening measure. However, the sensitivity of the ESI does not improve; in fact, it decreases. This decrease from 100% to 83% is due to the Parent Questionnaire's failure to refer one of the six McCarthy delay cases, all of which happened to be referred by the ESI. Because the combined ESI-Parent Questionnaire measure is inclusive -- remember, a child has to be referred by the ESI and the Parent Questionnaire -- this one child was not considered at risk by the combined measure. When looking into this one case, however, it appears that this is a situation of over-estimation on the part of the parents. The child scored well within the refer range on the ESI and the delay range on the McCarthy. Because this child did so poorly, it is very likely that other aspects of the screening process, other than the direct testing itself, would also have identified the child as at risk. Teachers and other professionals participating in the screening process will all contribute to the final decision to refer the child for further diagnostic evaluation.

This particular situation shows the importance of a multi-faceted assessment approach. Although we chose in this study to use the Parent Questionnaire in combination with the ESI, it is also possible to use the Parent Questionnaire as a prescreening device. In this capacity, the children who are classified as at risk by the Parent Questionnaire would go on to be screened with the ESI. And this is not only a time-efficient model, but a cost-efficient one as well. It is important to keep in mind through all of this, though, that the Parent Questionnaire and the ESI are not intended to be used in isolation. Medical as well as hearing and vision screenings are all vital aspects of the screening process, and if the child has been in some sort of a preschool program, information provided by the teachers is another valuable part of this process.

To summarize, the Parent Questionnaire has many advantages. From a psychometric standpoint, it is a valid and reliable measure for gathering parental input. From a practical standpoint, it is easy for parents to complete independently, and for practitioners, to score to determine cutoffs and include with the ESI classifications to obtain a combined indication of risk status. Most importantly, from a theoretical standpoint, the Parent Questionnaire provides a way to incorporate parents into their children's assessment. In all, the Parent Questionnaire represents an acceptable measure of parental input. It can be used as part of a multiple-risk model designed to identify young developmentally delayed preschoolers.

AUDIENCE DISCUSSION

An audience member expressed difficulty understanding the difference between a readiness test and a developmental screening. He noted that the content of the ESI, asking for specific information on objects, colors and shapes seemed like readiness items. Meisels responded that one is unable to separate experience form development and that there is definitely overlap of general knowledge, as assessed by a readiness instrument, and development, as assessed with a developmental measure like the ESI. He went on to explain that an important difference is how that general knowledge is assessed and evaluated, i.e., what role it plays. In the case of counting, for example, the child's concept of number is elicited and noted, rather than whether the child can rotely count. Probing questions are asked in order to explore expressive language, not because the name of the object in itself is important. There also is room for a fair amount of invention, which is different from readiness tests.

A suggestion was made to ask ten competent teachers to judge a child's developmental level and compare those results with the results on the ESI. Another audience member commented that, in her experience, teachers were very poor judges of a child's developmental level because of their subjectivity. They had mislabeled five out of six children as "gifted" in a study that she had conducted. Meisels agreed that a teacher's perception can very heavily influence what is seen. Therefore, having an objective, standardized measure of development is important. Adding the ESI Parent Questionnaire to the battery makes the ESI even more accurate and useful for predicting later school problems.

Panel 106 IMPACT OF HOMELESSNESS ON CHILDREN

Chair/Discussant: **Frank Fuentes**

Educating Homeless Children: A Review of the Literature *Yvonne Rafferty*

The trauma accompanying the loss of one's home is devastating for children. This trauma is often compounded by entry into an inadequate and unstable emergency shelter system, and the subsequent dislocation from community, neighbors, services, friends, and schools. Our own research in New York City indicates that 71% of homeless families requesting emergency shelter were actually placed in a different borough from their prior permanent home; 66% had been placed in two or more facilities; and 29% had been bounced between four and eleven different shelters (Rafferty & Rollins, 1989). Sadly, in every one of these families, there was at least one school-age child making these repeated and frequent moves. School is especially important for homeless children because of the very tumultuous nature of their existence, and the potential of the educational system to offer the stability, skills, and supports they so desperately need. School, in fact, may be the only source of stability in the life of a homeless child (National Coalition for the Homeless, 1987). Indeed, when asked, "How important is school and education for you," 92% of 159 homeless students in

Minneapolis shelters rated school as very important (Masten, 1990). Yet, homeless children typically confront greater obstacles in their attempts to obtain and maintain access to a free public school education.

Research on the educational achievement of homeless children indicates that they are more likely to score poorly on standardized reading and mathematics tests, and are often required to repeat a grade. To examine these issues, Advocates for Children conducted a large research project involving 9,659 homeless school-age children in New York City (Rafferty & Rollins, 1989). Other research has been consistent with our own findings. However, only holdover rates have been examined. Thirty-eight percent of 159 homeless students in Minneapolis had repeated a grade, compared with 24% of 62 housed children (Masten, 1990); 30% of a Los Angeles sample of 78 children had repeated a grade, compared with 18% of 90 housed children (Wood, Valdez, Hayashi, & Shen, 1990); and 35% of 43 homeless students in Philadelphia had repeated a grade, compared with 32% of 25 housed children (Rescorla, Parker, & Stolley, 1991).

The excessive rate of holdovers among homeless children will, no doubt, have long-term repercussions. Students who are over-age for their grade are more likely than others to drop out of school, get into trouble with the law, learn less the following year, and develop negative self-concepts (Hess, 1987). Several factors appear to mediate the educational achievement of homeless children. These include poor school attendance, unstable shelter placements, inadequate shelter conditions, and a lack of adequate educational services (cf. Rafferty, 1991a; Rafferty & Rollins, 1989; Rafferty & Shinn, in press). Government estimates of the number of homeless school-age children who do not regularly attend school range from 15% (General Accounting Office, 1989) to 30% (U.S. Department of Education, 1989). In contrast, the National Coalition for the Homeless (1987) estimates that 57% do not regularly attend school.

Two additional studies have evaluated the school attendance of homeless children. Seventy-eight homeless students in Los Angeles (Wood, Hayashi, Schlossman, & Valdez, 1989) missed more days in the prior three months than did 90 poor housed children (8-9 vs. 5-6), and were more likely to have missed more than one week of school (42% vs. 22%). For housed children, the primary reason for absence was illness; for homeless children, it was family transience. In our own New York study of 6,142 homeless students (Rafferty & Rollins, 1989), homeless high school students had the poorest rate of attendance (51% vs. 84%), followed by junior high school students (64% vs. 86%), and children in elementary schools (74% vs. 89%). The rates are even lower for students placed in special education programs (e.g., 60% for 124 severely emotionally disturbed children).

As mentioned previously, family transience and unstable shelter placements are a direct consequence of losing one's home. Not only do these disruptions impact on family life, they also disrupt children's schooling. For example, 75% of AFC's sample of 390 homeless children had transferred schools at least once since the loss of their permanent housing; on average, children missed 5 days of school with each move to a different shelter; and 20% missed 10 or more days with each move (Rafferty, 1990a; Rafferty & Rollins, 1989). These school transitions hinder children's continuity of education and disrupt their social relationships with classmates and friends.

Environmental conditions within emergency shelters are not conducive to education. Congregate living environments in many shelters present optimal conditions for the transmission of infections and communicable diseases, which, in turn, hinder regular school attendance. Other barriers include residency requirements, inability to obtain school records, transportation problems, having to parent younger siblings, family stress, lack of clothing and supplies, and lack of day care for teen parents (Center for Law and Education, 1987; National Coalition for the Homeless, 1987; Rafferty & Rollins, in preparation; U.S. Department of Education, 1990). Given the disruptions associated with homelessness and the excessive number of school transfers, homeless children may also need remedial educational services to address academic deficits, preschool enrichment services to prevent academic failure, psychological support services to respond to emotional problems, and greater sensitivity from school personnel who often stigmatize them (cf. Eddowes & Hranitz, 1989; Gewirtzman & Fodor, 1987; Horowitz, Springer, & Kose, 1988; National Association of State Coordinators for Homeless Children and Youth, 1990; Rafferty, 1990a). These services are rarely provided (Rafferty & Rollins, in preparation). In addition, homeless children are likely to lose existing educational services with the onset of homelessness: of 97 children who were receiving remedial assistance, bilingual services, or gifted and talented programs in New York prior to their loss of permanent housing, only 54% continued to receive them while homeless (Rafferty & Rollins, 1989).

In July of 1987, the Stewart B. McKinney Homeless Assistance Act was enacted by Congress, providing the nation's first legislative response to the educational needs of homeless children. Title VII, Subtitle B, Education for Homeless Children and Youth, guarantees homeless children access to the nation's public schools by establishing as Federal policy that states must ensure that homeless children and youth have the same access to a free, appropriate public education as permanently housed children in the community. In addition, it provides states with Federal funding to implement this policy. States receiving McKinney funds are required to gather information on the number and needs of homeless children, to identify barriers preventing homeless children from attending school, and to develop a plan to remove these barriers. The U.S. Department of Education is required to oversee the implementation of Subtitle VII-B. On November 29, 1990, President Bush signed into law the McKinney Homeless Assistance Amendments of 1990 (P.L. 101-645), which significantly expand Federal directives. Particularly noteworthy is the expanded statement of policy mandating that states address any policies or laws that are negatively impacting educational opportunities. It is also explicitly stated that funds be used to provide direct services, such as tutoring, remedial education services, staff development, and parent involvement activities. Also noteworthy are those sections of the law that outline new responsibilities for the state coordinator and the state education

department. This legislation addresses one of the most important issues facing homeless children and youth -- access to appropriate educational services. Unfortunately, there has been less than adequate compliance by both state departments of education and the U.S. Department of Education (cf. Rafferty, 1991b; Rafferty & Rollins, in preparation).

In conclusion, homeless children confront abject poverty and experience a constellation of risks that are having a devastating impact on their well-being. The stresses and endangerments we are exposing those youngsters to will undoubtedly have incalculable results. Addressing the needs of homeless children remains an unmet challenge. First and foremost is the need for an adequate supply of affordable permanent housing. Without the security of permanent housing, homeless children inevitably face significant educational problems, and their ability to succeed in school will be seriously compromised. Congress must re-examine budget priorities that address the nation's housing crisis, increase federal funding for public housing, make housing assistance more of an entitlement, and raise the levels of support afforded by subsistence programs.

While affordable permanent housing is the fundamental issue of homelessness, it is not the sole need of homeless families with children. At the very least, homeless children need adequate and stable emergency shelter for transitional use, adequate food and nutrition, assistance in obtaining the benefits to which they are entitled, access to preventive and curative health and mental health services, early intervention programs to prevent the onset of developmental delays, and an opportunity to be educated.

With regard to the educational needs of school-age homeless children, the existing educational provisions of the McKinney Act must be enforced by the U.S. Department of Education, and also expanded to provide an appropriate and effective response to the educational needs of homeless children. In addition, local education agencies and social service departments must work together to ensure that homeless children are being adequately served. Finally, effective strategies must be devised and implemented to a) ensure that access barriers do not prevent any homeless child from accessing the public school system; b) assure timely and appropriate educational placements; and c) ensure the provision of necessary services to ensure academic success once children are enrolled in school. At the very least, we owe this to our nation's children.

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Homelessness in Head Start Preschoolers: Preliminary Research *Rosemarie DiBiase, Sandra Waddell*

Becoming homeless is devastating. People who become homeless are people with nowhere to turn, no friends, no family, no money, no support. The problems associated with homelessness have not yet been well examined. However, as more and more individuals and families become homeless, their problems will become an ever-increasing part of society. One particularly crucial concern is for children in homeless families. While being homeless is stressful for adults, its effects on young and developing children may be even more destructive. A vital area of interest is what the effects of homelessness will be on young children who are forced into this position at critical periods of their physical, social, emotional, and cognitive development.

Homelessness may affect developing young children through several different processes. For example, profound chaos and high levels of anxiety are common characteristics of homeless families (Neiman, 1988). Parents who become homeless, usually

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young, single mothers, are typically overwhelmed and highly stressed. Because their emotional resources are expended trying to meet basic human needs, they often have little support and understanding to offer their children at a time when their children need it most. Several studies have suggested that this type of parental stress has a negative impact on the parent child relationship (Zussman, 1977; Hetherington, Cox, & Cox, 1979). Highly stressed parents are more critical, less responsive to their children's needs, and less playful. This emotional deprivation can leave children feeling neglected, confused, and frightened. In addition, children whose families become homeless undergo significant physical changes and changes in lifestyle. They must leave their homes, including most belongings, neighborhood friends, and schools. Sometimes they must also leave a second parent or other relatives. Routines are disrupted and new routines difficult to establish. These changes can leave children feeling socially isolated, disorganized, and helpless.

The effects of these types of events on children's development are not yet well understood. Emotional deprivation and social isolation, typically imposed on homeless children, are thought to lead to insecure attachments to others, poor self-esteem, aggressive behaviors, and dysfunctional personality development (Harlow & Suomi, 1971; Kegan, 1982; Coopersmith, 1967). A few studies have directly examined the impact of homelessness on school-aged children and adolescents (Bassuk & Rubin, 1987; Neiman, 1990; Molnar & Klein, 1988). These studies have suggested that homeless children are withdrawn, depressed, dependent, and aggressive. In addition, their school attendance tends to be irregular and their work of poor quality. However, these studies failed to use adequate control groups, making it unclear whether these effects are the direct result of homelessness or some other stressful situation, like low socio-economic status. In light of these studies, the primary goal of this research was to examine social, emotional, and personality variables in homeless and non-homeless preschoolers of the same socio-economic status. It was predicted that the extreme physical circumstances of homelessness would have a direct effect on preschoolers' self-concepts, psychopathological symptoms, and rates of emotional development independent of socioeconomic status.

METHOD: The participants in this study were recruited on a voluntary basis from the Head Start Centers in Beverly, Peabody, and Salem, Massachusetts (North Shore Community Action Program), and the Homeless Head Start Project in Salem, Massachusetts (NSCAP). Subjects were between the ages of 4 and 5 years at the first contact (average age was 4 years 4 months). Parents were recruited at orientation sessions, where they signed permission forms if they were interested in being part of the study. Ninety-five percent of all parents who were approached agreed to participate. There were a total of 38 children who participated in the study. Nineteen were male and 19 were female, and 17 were homeless and 21 were non-homeless.

Within two weeks of entry into Head Start, (homeless and non-homeless) subjects were interviewed and examined on self-concept, emotional development, and family interactions by either a developmental psychologist or a trained undergraduate student. Subjects were seen in one session, lasting approximately one hour. Testing took place in a quiet area of the Head Start classroom and was videotaped. In addition to this testing, teachers were asked to fill out three questionnaires (a personality inventory, a temperament questionnaire, and an inventory of interpersonal interactions) on each child. This was done during the fourth to sixth week of the child's stay in the program. Additional information about the children, for example, their ethnic and national origins, family history, and developmental background, as collected by Head Start social service coordinators. Classroom teachers gathered data on each child's physical, social, cognitive, and language skills. Finally, mental health workers collected information on psychological functioning.

MEASURES: The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) was used to examine self-concept. This instrument measures self-concept in the areas of peer relations, cognitive competence, physical competence, and maternal acceptance. The instrument contains 24 pictorial scenes, each containing one competent child and one incompetent child doing the same activity. The child being examined is asked to pick the pictured child that is most like him/herself. Scoring ranges from 1 to 4 for each item. Child Behavior Checklist (Achenbach & Edelbrock, 1981) was used to determine the psychological health and specific behavior problems of each child. In this study, only the subscales that applied to both males and females were used. These included the depression, schizoid, social withdrawal, aggressive, and sex problems subscales. To assure consistency of response, teachers rather than parents were asked to fill out the behavioral rating scales. The CBCC contains 113 items that require the respondent to determine whether each item is not true, sometimes true, or always true of the child being rated. The scale takes 30 minutes to administer and is appropriate for children from ages 4 to 16. Emotional Development Interview (DiBiase, 1990) was used to examine the emotional development and responsiveness of each child. This measure was administered in interview style. Each child was shown a picture of a happy child, a sad child, an angry child and a frightened child. The target child was then asked to identify each emotion and tell which child s/he felt most like. In addition, children were asked to list things that made them feel each of these emotions.

RESULTS: To compare the homeless and non-homeless children on self-concept a 2 (homeless, non-homeless) by 2 (sex) ANOVA was performed on each of the self-concept subscales. Analyses revealed homeless main effects for cognitive competence ($F(1,27)=7.66$, $p<.01$), peer relations ($F(1,27)=15.01$, $p<.01$), and maternal acceptance ($F(1,27)=10.49$, $p<.01$). There was a trend for a homeless main effect with physical competence ($F(1,27)=3.70$, $p<.06$) as well. In all cases, homeless children had

lower self-concept ratings than non-homeless children. There were no sex main effects or interactions. A 2 (homeless, non-homeless) by 2 (sex) ANOVA was performed on each of the subscales of the CBCC that applied to both males and females. The results of the analyses showed homeless main effect for the depression subscale ($F(1,37)= 10.80$, $p < .01$), such that homeless children showed more deviant behaviors than non-homeless children. In addition, there was a sex main effect for aggression ($F(1,37)= 5.08$, $p<.04$), such that males were more aggressive than females. There were two interactions (see table 3). One was for the social withdrawal scale ($F(1,37)=17.33$, $p<.01$) and the other for the schizoid scale ($F(1,37)= 4.25$, $p<.05$). Post-hoc comparisons were done using the Sheffe method. Results revealed that homeless boys were significantly more socially withdrawn and displayed more schizoid behaviors than other groups.

Results for emotional development were less well defined. Two chi-square analyses were performed to determine whether the frequency of correctly labeling emotional expressions (happy, sad, angry, frightened) and self-reports of emotional state (happy, sad, angry, frightened) differed between homeless and non-homeless children. There were no differences on identification of emotional expression; however, more non-homeless children reported feeling happy than homeless children (X^2 (1)= 4.71, $p<.02$). ANOVA's showed that there also were no differences in types of responses to questions about emotional states; however violence (battering, child abuse) was the most common answer to the questions of what makes you sad and what makes you angry (30%). A t-test showed that there was no difference in number of violent incidents cited by homeless and non-homeless children.

SUMMARY OF FINDINGS: Homeless children generally perceive themselves as less cognitively, socially, and physically competent than do non-homeless children. In addition they perceive themselves as being less well accepted by their mothers than do their non-homeless peers. Homeless children have different personality profiles than non-homeless children. In general, they show significantly more problem (deviant) behaviors than non-homeless children. Specifically, homeless children are more likely to show depression than non-homeless children. Homeless boys are more socially withdrawn and schizoid than any other group. Homeless and non-homeless children attending Head Start experience a high level of violence in their environments. Homelessness does not predict violence better than does socioeconomic status. Most of the children who disclosed violence talked about familial violence in the form of spousal or child abuse.

DISCUSSION: The first finding of interest is that self concept is significantly different in homeless and non-homeless children. Self-concept is thought to develop over the childhood period. Feeling loved, significant, and competent are all thought to influence its formation (Coopersmith, 1967). Given the helplessness and emotional deprivation that homeless children experience, the finding that homeless children have lower self concepts is an easily understood consequence of their dysfunctional environment.

As in previous studies with older children, depression is a common problem among homeless preschoolers One explanation for this increase in depression is related to the stress associated with being homeless. Family stress and stress-related situations are widely known inducers of depression in children (Johnson, 1982). Specifically, depression has been associated with negative life changes, including major loss. Other models of depression maintain that it results from a lack of positive environmental reinforcers (Ferster, 1974; Lewinsohn, 1974). Given the circumstances of homelessness (i.e., chronic loss, parents lacking in physical and emotional resources), either one of these models could be used to explain why homeless children experience depression. The process of becoming depressed is thought to involve the internalization of negative feelings about one's self (Beck, 1967, 1974; Kovacs & Beck, 1978)). That is, children who internalize negative feelings about themselves are prone to depression. In this study, as described earlier, homeless children clearly have more negative feelings about themselves (lower self-concepts than non-homeless children). Thus, in addition to the environmental factors leading to depression, homeless children's internal mechanisms may also contribute to the process of becoming depressed.

Schizoid (anxiety-related) behaviors and social withdrawal are also found to a higher degree in homeless boys, as opposed to homeless girls and non-homeless children. While there are fewer specific theoretical ideas about these behavioral problems, they, like depression, are generally thought to be related to stress. Therefore, as with depression, it is not surprising that these problems would be found in a higher frequency among homeless as opposed to non-homeless children. However, the fact that they are found to be more severe problems in homeless boys suggests, as has been suggested in other developmental literature, that males are more psychologically vulnerable to environmental stress than females throughout childhood (Emde, 1979; Rutter & Garmezy, 1983).

The last finding, that both homeless and non-homeless children of low socioeconomic status experience and internalize significant violence in their lives, was not anticipated. It suggests that violence is becoming an ever- increasing part of children's lives. To fully appreciate the impact of violence on child development, more research is needed. In general, however, these findings suggest that homelessness is a pervasive and debilitating problem for young children. It appears to have effects that extend from self-concept to psychopathology. Not only do homeless children display immediately observable behavioral disturbances, they also have self-concept problems that are likely to have far-reaching developmental effects.

In the process of doing this research several new questions have emerged. The first question pertains to the long-term consequences of homelessness. In the present study and other related studies (Bassuk, 1987), evidence suggests that homelessness has a profound and immediate impact on children's development and psychological functioning. However, there are no data regarding the long-term effects of homelessness on the development of young children. Given this incomplete understanding, a next step would

be to examine the impact of homelessness on children's long-term mental health. The goal of this type of study should be to determine which aspects of the mental health are most chronically affected by homelessness. A second question relates to resiliency. Recently, researchers in this area have begun to examine resilience with respect to homelessness (Neiman, 1988). Future studies should attempt to understand why certain children are less vulnerable to the stresses associated with homelessness than others. This could aide in helping children cope with the stresses associated with homelessness. Finally, future studies should explore intervention, that is, how can intervention programs be designed to best help children cope with their homelessness. It is expected that interactions and activities designed to build self-esteem, foster social interaction, and alleviate depression would be among the most important to these children.

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Developmental Skills and Socioemotional Behavior of Young Homeless Children *Sally A. Koblinsky, Martha L. Taylor*

In recent years, homelessness has affected the lives of increasing numbers of U.S. citizens. Families with children have become the fastest growing segment of the homeless population, accounting for approximately 34% of the homeless (U.S. Conference of Mayors, 1990). The Institute of Medicine (1988) estimates that there are at least 100,000 homeless children every night, and half of these children are under 6 years of age (Towber, 1986; Maryland State Department of Education, 1989). The majority of homeless children live in shelters with their single mothers (U.S. Conference of Mayors, 1990). Only a few empirical studies have examined the social-emotional and developmental skills of homeless children. In one Boston-area study, parents of homeless preschoolers provided information about their children's behavior using the Simmons Behavior Checklist (Bassuk & Rubin, 1987). Parents rated their children as having major problems with aggression, shyness, withdrawal, sleep problems, and attention span. Other researchers (e.g., Molnar, 1988), observing homeless preschoolers in New York early childhood programs, have also noted a high frequency of aggressive behavior, short attention span, sleep disorders, withdrawal, regressive behaviors, and inappropriate interaction with peers and adults.

In examining homeless children's developmental status, Bassuk and Rubin (1987) found that 47% of the homeless preschoolers in their sample had at least one developmental lag in language, motor development, or social skills on the Denver Developmental Screening Test. In contrast, only 16% of a sample of housed, low-income preschoolers in the Boston area exhibited a developmental lag (Bassuk & Rosenberg, 1990). In a more recent New York study by Molnar and Rath (1990), homeless preschoolers and low-income, housed preschoolers did not differ significantly in their performance on the Early Screening Inventory (ESI). Approximately 53% of the sample of homeless and housed children performed satisfactorily on the ESI; the remainder required rescreening, further evaluation, or treatment for developmental problems.

Recently, educators have speculated that homeless children's behavior and development may be influenced by the type of shelter in which they reside (Marcus, Flatter, Talabis, Ford, Conahan, & Catoe, 1991). Many homeless families reside in "emergency

shelters" that offer little privacy, strict time limits (usually one night to one month), and communal dining and bathroom facilities (Mihaly, 1989). In some emergency shelters, adults and children must leave the facilities early in the morning and then find places to wait until the shelters reopen in the evening (Boxill & Beatty, 1990). In an effort to reduce the short stays in emergency shelters, some cities have set up "transitional housing." These residences often provide small, private apartments or bedrooms for homeless families, and allow them to stay for longer periods of time (e.g., one to two years) in order to regroup their resources (Rivlin, 1990). Such housing arrangements may reduce some of the instability and uncertainty faced by homeless families, contributing to more positive parenting practices and fewer child problems.

In view of the lack of research examining the relationship between shelter type and homeless child development, this study compared the social, cognitive, and physical development of homeless preschoolers living in emergency and transitional shelters in Baltimore, Maryland. The study also examined whether homeless preschoolers' skills and behaviors were related to their gender, age, duration of homelessness, enrollment or lack of enrollment in an early childhood program, and mothers' attitudes about parenting and teaching children.

METHOD: The subjects were 73 homeless mothers and 73 homeless children between the ages of 3 and years. Information was obtained from one preschool child per family. Thirty-five of the mother-child dyads were staying in eight emergency shelters, and 38 of the mother-child dyads were residing in two transitional housing facilities. Emergency shelters (ES) allowed homeless families to stay for periods ranging from one night to one month, and charged no fees for the family's stay. Families slept in gymnasiums, military barracks, or small rooms (e.g., YMCA), and shared dining and bathroom facilities. Transitional shelters (TS) provided homeless families with one-bedroom apartments in two remodeled elementary school buildings for as long as 18 months. Apartments had small kitchens and private bathrooms. Homeless parents paid one-third of their adjusted gross income to "rent" these apartments (Transitional Housing Program, 1989). The sample represents approximately 95% of the mothers in the targeted shelters who had a child in the desired age range. Although the sample is generally representative of families staying in Baltimore shelters, some area shelter staff turn away families with significant mental illness or substance abuse problems. Thus, the number of homeless families with severe emotional and psychological problems may be underrepresented.

Approximately 90% of the children in the study were Black and 10% were white. More than 90% of the children lived in single-parent families. Almost two-thirds of the homeless mothers had completed high school, but more than 85% were unemployed at the time of the study. Despite some disparities in the demographic characteristics of the ES and TS families, Chi square analyses revealed that there were no significant differences in the gender, ages, or racial background of children in the two types of shelters. The Chi square analyses also failed to reveal significant differences between ES and TS mothers' ages, marital status, educational background, employment status, and reasons for homelessness. TS mothers were significantly more likely than their ES counterparts to have been homeless for more than one year and to be receiving USDA Food stamps.

Homeless mothers were orally administered a demographic questionnaire, the Simmons Behavior Checklist (Reinherz & Gracey, 1982) and the Parent As a Teacher Inventory (Strom, 1984). The Simmons Behavior Checklist (SBC) addresses 11 areas of behavior problems, and requires the parent to report how frequently the child exhibits 38 different behaviors. The Parent As a Teacher Inventory (PAAT) measures parental childrearing attitudes in five major areas: fostering creativity, dealing with frustration, parental need for control over children's behavior, support for play behavior, and parental self-confidence as a teacher. Total scores are interpreted as desirable or undesirable on the basis of whether they exceed or fall below the absolute mean of 125 (Strom, 1984). Children were administered the Early Screening Inventory (ESI) to evaluate their developmental skills in three major areas: visual-motor adaptive skills, language and cognition, and gross motor/body awareness (Meisels & Wiske, 1988). In evaluating children's performance on the ESI, children are scored as "O.K." (total score higher than 1 standard deviation below the mean of the national standardization sample), needing "rescreening" (total score between 1 and 2 standard deviations below the mean), or needing immediate referral (total score lower than 2 standard deviations below the mean). Staff members of Health Care for the Homeless of Baltimore City identified 10 homeless family shelters for the researchers. Homeless mothers with preschool children were given the opportunity to participate in the study, and were paid $20 for their own and their child's participation. Mothers were assured that all information collected in the study would remain confidential. The data were collected by the researchers and two trained graduate students. Interviews with the mother averaged one hour, and administration of the ESI to each child averaged 20 to 30 minutes.

RESULTS: Two child outcomes were examined in this study: parents' evaluations of children's behavior on the Simmons Behavior Checklist (SBC) and children's scores on the Early Screening Inventory (ESI). The study also examined mother's performance on the Parent as a Teacher Inventory (PAAT).

The mean SBC scores of Baltimore emergency shelter (ES) and transitional shelter (TS) preschoolers reveal that ES children had higher scores (more problems) in 7 of the 11 problem areas than TS children. However, results of the 2 (type of shelter) x 2 (gender of child) analysis of variance for each subscale revealed only one significant finding: ES children had significantly more sleep problems than their TS counterparts. There were no significant differences in the behavioral scores of homeless girls and boys. To place the problems of homeless Baltimore children in context with those of homeless and housed children in the Boston area, we

compared our data with those of four Boston area groups: homeless preschoolers (Bassuk & Rosenberg, 1990), low-income, housed preschoolers (Bassuk & Rosenberg, 1990), working-class, housed preschoolers (Reinherz & Gracey, 1982), and emotionally disturbed preschoolers (Reinherz & Gracey, 1982). According to mothers' reports, Baltimore homeless preschoolers have a higher incidence of behavioral problems than all three comparison groups in the areas of attention problems, demanding behavior, aggression, shyness, withdrawal, sleep problems, and coordination problems. Thus, although there were no significant differences between ES and TS children on majority of subscales, children in both groups appear to be exhibiting substantial behavior problems.

ESI results indicated that only 31% of the Baltimore ES children and 42% of the TS children exhibited developmental skills typical of their age group. Overall, 37% of the homeless preschoolers performed satisfactorily on the inventory, 16% earned scores indicating a need for rescreening, and 47% required immediate referral for further evaluation and/or treatment. Chi square analyses were used to determine whether children's ESI performance was significantly related to their type of shelter, gender, age, length of homelessness, preschool attendance (attendance of one or more months versus attendance of less than a month/no attendance), and mother's performance on the PAAT. Children's age was found to be significantly related to ESI performance, with 5-year-old children performing best and 3-year-old children performing worst on the ESI. In examining the relationship between preschool attendance and ESI performance, data were analyzed for the entire sample and for 4- and 5-year-olds only, since a large number of 3-year-olds failed to attend preschool and performed poorly on the ESI. In both analyses, homeless children who had attended preschool for at least one month were significantly more likely to perform satisfactorily or earn rescreening scores on the ESI than were children who had not attended preschool. There was no significant relationship between children's ESI performance and their gender, type of shelter, length of homelessness, or their mother's performance on the PAAT.

The technique of step-wise regression analysis was used to examine the relative contribution of selected variables to homeless children's ESI scores. Among the independent variables entered in the regression equation were: months of homelessness, number of moves in the previous year, mother's years of education, mother's PAAT score, gender of child, age of child (months), months of preschool, and the child's SBC score. The dependent variable in the regression equation was preschoolers' overall performance on the ESI, reflected by a score of 3 (performs satisfactorily), 2 (rescreening), or 1 (referral). Results revealed that only two variables, months of preschool and child's age, were significant predictors of children's ESI performance, collectively explaining 33% of the variance. Approximately 21% of the variance was explained by months of preschool, and an additional 12% was explained by the child's age. The more months homeless children had attended preschool, the better they performed on the ESI. As noted earlier, older preschoolers performed better on the ESI than younger preschoolers.

Eighteen, or 25%, of the homeless Baltimore mothers had total scores on the PAAT that fell below the inventory mean of 125, indicating less desirable parenting attitudes based on the consensus of child development experts. Interestingly, on one of the PAAT items, 67% of the homeless parents reported that they could provide their children "with the proper preschool experience at home." To test the hypothesis that TS mothers would have more desirable parenting attitudes than ES mothers because their living arrangements were more stable, 2 (housing status of mother) x 2 (gender of child) analyses of variance were conducted on the PAAT subscale and total scores. The data in table 4 reveal that TS mothers obtained significantly higher mean scores, or more desirable parenting attitudes on the total inventory, than did ES mothers. TS mothers were also significantly more likely than their counterparts in emergency shelters to be tolerant of the frustrations involved in childrearing and to allow their children opportunities for self-assertion and decision making. Results of the PAAT analysis also reveal several significant shelter type x gender of child interactions. In emergency shelters, mothers of girls were more tolerant of childrearing frustrations and supportive of play behavior than mothers of boys; in transitional shelters the reverse was true. There was also a significant shelter type x gender of child interaction for total inventory scores. The data reveal that mothers of boys in emergency shelters have significantly less desirable parenting attitudes than the other three groups of mothers.

DISCUSSION: This study has significant implications for early childhood educators, shelter providers, and human service personnel. Results indicate that the physical and psychological conditions under which homeless preschool children live place them at increased risk for behavioral disturbances and developmental problems. The severity of the problems experienced by Baltimore homeless children in both shelter arrangements points to an immediate need for educational and parenting interventions. As in one previous study (Bassuk & Rubin, 1987), homeless preschoolers in Baltimore exhibited a wide range of behavioral disturbances. Findings suggest that the instability, limited privacy, and lack of play space associated with shelter life may contribute to a variety of impulsive negative behaviors, as well as to shyness and withdrawal. The magnitude of these problems, as reported by mothers, may be great. Indeed, homeless preschoolers in both Baltimore and Boston exhibited more problems with aggression, shyness, and sleep than a sample of emotionally disturbed preschoolers (Reinherz & Gracey, 1982). Contrary to predictions, sleep disturbance was the only behavior that differentiated homeless children in emergency and transitional shelters. Children in the less-private emergency shelters had significantly more sleep problems than children in transitional housing.

Overall, the parenting attitudes expressed by the majority of Baltimore homeless mothers were within a desirable range identified by child development experts (Strom & Slaughter, 1978). The sample mean scores of homeless parents were slightly lower than samples of white, Hispanic, and Black families representing a variety of income levels, but not substantially lower (within 10 points). As in previous studies (Molnar, 1988; Vanderbourg & Christofides, 1986), the researchers noted that many homeless mothers

were very concerned about their children's developmental progress, and made efforts to nurture children's learning under very difficult circumstances. Findings further indicate that the nature of the shelter environment may have an important effect on parenting attitudes. Transitional housing arrangements offering extended periods of shelter may reduce mothers' parenting frustration and increase their interest in allowing children to behave independently and make age-appropriate decisions. In contrast, the temporary, often chaotic emergency shelter environment may have a particular influence on mothers' attitudes toward rearing boys. The less desirable parenting attitudes expressed by mothers of sons in emergency shelters may reflect mothers' difficulty in handling active, challenging boys in a crowded, short-term shelter environment.

The homeless Baltimore preschoolers in this investigation were more likely to experience developmental problems than homeless preschoolers in Boston (Bassuk & Rubin, 1987) and New York (Molar & Rath, 1990). In Baltimore, only 37% of the homeless preschoolers were developing normally, as compared to approximately half the homeless samples in Boston and New York (Bassuk & Rubin, 1987; Molnar & Rath, 1990). It is likely that a majority of children in the Baltimore sample will require further screening, evaluation, and/or special educational services in order to perform adequately in school.

One of the major findings of this study was the significant relationship between preschool attendance and children's performance on the developmental screening measure. The most important predictor of children's ESI scores was months of attending preschool--the more months in an early childhood education program, the higher the children's ESI scores. Although even the homeless children with preschool did not score as high as the ESI national standardization sample (Meisels & Wiske, 1988), they clearly outperformed their peers who had not enrolled in a preschool program.

Our findings also reveal a significant relationship between age of the children and their performance on the developmental screening measure. This relationship remains significant after controlling for months of preschool attendance. These results suggest that homelessness may have a particularly damaging impact on the cognitive, language, and motor skills of younger preschoolers who are beginning to master grammatical rules, rapidly expanding their vocabulary, developing fine and large motor coordination, and developing memory and other cognitive skills. Additional research, including longitudinal studies, must be conducted to determine how the age of onset and duration of homelessness affect children's behavior and development.

Taken together, the current findings indicate that Head Start and other early childhood programs should make enrollment of homeless children a top priority. However, enrolling these children may not be an easy task. Some Head Start administrators report that centers are reluctant to enroll homeless preschoolers because shelter time limits cause the children to move frequently, disrupting program continuity and leaving unused student slots. Administrators also report that homeless children are often absent or tardy, and may have difficulty obtaining transportation to the program. Homeless mothers may also be reluctant to enroll their children in preschool programs. As our data indicate, a majority do not consider the preschool experience necessary for later school success. In other cases, lack of motivation, maternal depression, or extreme maternal dependency on children may prevent a mother from enrolling her child. Still, considering the potential benefits of early childhood education for homeless children, it is clear that Head Start programs should be given strong incentives for enrolling homeless preschoolers and should make efforts to educate homeless parents about the value of early education for their children.

The Head Start program can become a significant resource supporting the development of homeless children and families. Head Start provides numerous services that are frequently unavailable to homeless children -- early childhood education, a secure environment, stable routines, medical and dental screening, and nutritious meals. There is a particular need to provide homeless families with full-day Head Start programs so that homeless parents can participate in education and training programs and obtain full-time employment. Homeless parents can also benefit from participation in Head Start's parent-education programs. In particular, homeless parents may increase their childrearing skills by attending programs that address ways to enhance children's self esteem, deal with parenting frustrations, help children overcome specific behavioral problems, and provide children with developmentally appropriate activities in the restricted shelter environment. Head Start personnel may also help homeless parents to build informal social support networks and to establish links to community service agencies and the public schools. The Head Start program can play an important role in helping homeless families to enhance their parenting skills and to nurture their children's physical, cognitive, and social-emotional development.

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Discussion *Frank Fuentes*

I would like to depart from the standard format of commenting on each of the papers and instead address several questions to the presenters. First, from a priority standpoint, what aspects of additional research on the effects of homelessness would be useful, in fact, necessary? Second, while a longitudinal study would be called for, is there any value in looking at other homeless populations to determine the long-term impact of homelessness on the children that need to be served right now? I know we have heard a number of suggestions about what Head Start could do, but is there more, from a practical standpoint, that Head Start can do? Should Head Start be intervening in a new fashion or in a different way in assisting this population?

YVONNE RAFFERTY: In terms of additional research on homelessness, one of the most fascinating findings that has come from studies on nutrition, health care, and access to health care services, the development of very young children, access to preschool services, the education literature, and the psychological literature, is the great similarity between children who are homeless and children who are permanently housed. In New York City, some of the problems that are being manifested by children who are homeless are really just symptoms of a deprived environment, such as lack of adequate assistance, not having enough food, not having a permanent home, not even having a decent home, and services not being available. Regarding a longitudinal study, my belief is that a homeless family should not be homeless long enough to be in a longitudinal study. Many times they are, though. My own preference in terms of additional research is to look at the social conditions under which thousands of children are being neglected in this very rich country. This would be one of the most important research questions, not focusing on why homelessness bothers some children while other children thrive. In addition, we can study the impact of different types of shelters, but it has been my own anecdotal experience that any type of shelter is not good for children. They really need to have permanent housing. Children who have lived in welfare hotels change dramatically once they are in permanent housing -- this needs to be documented.

Other areas of concern to me are continuity of education and family variables that are mediating better or worse outcomes for children. Half of the children in shelters are failing developmental inventories, but half of the children, in spite of incredibly adverse circumstances, are managing to do well. I would be interested in seeing more research on the family variables; whether mothers are under stress, if they are depressed, if there is violence in the family. How do family variables mediate and predict resilient children? That would apply to homeless and other low-income families. We need to know more about these relationships, so that we can develop parenting and family interventions that are based on empirical research rather than just intuitive feelings about what might be helpful.

ROSEMARIE DIBIASE: We are getting more information about homeless children, and low-SES children in general, so that intervention programs can be designed to be more helpful to these children. We know that they are depressed. We know that they are lacking in self-confidence. This knowledge can be incorporated into intervention programs like Head Start with the inclusion of mental health services. One Head Start classroom designed for only homeless children provided them with the structure, adult role models, and many different interventions that I think were very beneficial to them.

AUDIENCE DISCUSSION

Audience members were concerned about segregating homeless children in special programs or classes and felt there would be greater beneficial effects from mainstreaming. This was verified by one presenter who is strongly opposed to any attempt to segregate homeless children. There was an expression of caution about the burden being put on Head Start and similar intervention programs to deal with and solve these problems. All levels of government and private agencies must become involved.

Presenters were asked to share their knowledge about any interventions that have been found to be most meaningful for this population. Interventions that were described were: a program that provides health care services within a shelter; a Board of Education outreach program designed to facilitate continuity of education; and those few shelters that provide day care services.

Koblinsky emphasized that asking homeless parents what they feel their needs are is essential. Often, unthought-of issues can be addressed when this happens -- as in one case where shelter residents were unable to stretch their food stamps because they could not travel to larger, less expensive stores. When this problem was reported, the shelter began providing transportation to

discount stores. She also described how an alliance between shelters and a university has provided some stop-gap help by students becoming involved.

Panel 107 GIFTED MINORITY PRESCHOOLERS: IDENTIFICATION, ASSESSMENT AND INTERVENTION

Chair/Discussant: **Mary M. Frasier**

Identification of Minority Inner City Gifted Preschool Children *Barbara Louis, Candice Feiring, Michael Lewis, Ikechukwu C. Ukeje*

Children from poverty-stricken inner city environments are, by definition, children at risk. To identify and develop the potential of a group of young gifted inner city children would proclaim that giftedness is to be found among the minority population of this high-risk environment and counteract the stereotype of the "ghetto" child as dysfunctional and incompetent. The belief that gifted children will do well regardless of home or educational environments is not supported (Feldman, 1982; McGuffog, Feiring, & Lewis, 1987; McKenzie, 1986). Currently, 0.4% of children entering first grade in the public school system of Newark, New Jersey, are identified as gifted. Statistically, 2% of inner city children should meet gifted criteria. This suggests that this talent, while not being identified and nurtured in the preschool years, is being lost. The purpose of this study was to identify minority gifted preschool children living in the inner city. To this end, we developed a screening instrument and tested its validity. Following identification of a group of gifted children, our goal was to establish an enrichment program in order to nurture their unique abilities.

METHOD: Nine hundred forty-eight children between the ages of 2 and 5 years from 27 day care centers in the inner city of Newark, New Jersey, served as participants. Of these children, 355 received the full assessment battery. The screening device consists of six age-appropriate forms for 2- through 5-year-olds (e.g., form 1: 2. 0 years to 2.5 years; form 2: 2.6 years to 2.11 years, etc.). Each form consists of 12-18 items requiring the child to perform certain cognitive tasks. The screening takes approximately 15 minutes to administer.

In order to evaluate the effectiveness of the screening tool and to validate the identification of children screened as gifted, we have assessed 355 children of the 948 screened. These children include those nominated by our screening tool as well as three comparison groups necessary to examine the effectiveness of our newly developed screening instrument. The comparison groups allow us to test the hit rate of our screening tool compared to teacher nomination, a method often used in the past to identify gifted children, and chance selection (the statistical comparison group). Consequently, children were divided into four groups for the purpose of assessment. The four groups are as follows: 1) screening nominated - **SN**. This group consists of children who reach criterion score, indicating potential giftedness, for their age group on the screening measure; 2) teacher nominated -**TN**. This group consists of children chosen by their teacher as being potentially gifted; 3) teacher and screening nominated - **TN/SN**. This group consists of children who are both teacher and screening nominated; 4) no nomination - **NO/NO**. This group consists of children who are neither screening nor teacher nominated. The majority of children are likely to fall into this group.

Each child chosen for evaluation was seen on two separate occasions for approximately three hours of assessment. Children were assessed in five specific skill areas, including verbal, spatial, quantitative, memory, and pre-reading skills, as well as overall cognitive ability and spontaneous language. A short behavioral checklist was completed for each child immediately following the first session. All SN, TN, and TN/SN children received the full test assessment battery. A random sample of the NO/NO group also was selected to receive the full assessment battery, as a test of the effectiveness of our screening device against no form of screening (rate of false negatives). A total of 258 children were nominated by screening test, teacher, or both screening test and teacher. In addition, 132 children from the NO/NO group were chosen for evaluation. Termination of 35 nominated children resulted in a total evaluation sample of 355 children.

RESULTS: Of the 355 children who received the full assessment battery, 16, or 5%, have been found to score in the gifted range. Table 1 presents the distribution of these gifted children by nomination group and age. It also presents the number of children scoring at the 98th, 95th, and 90th percentiles. Because standardized tests are known to give biased estimates of minority population performance, we felt it was important to consider broader criterion ranges for giftedness. Table 1 shows that when we move to the 95th and 90th percentile criteria, the number of gifted children increases markedly. A total of 57 children (16%) scored in the 95th percentile and 108 (30%) in the 90th percentile. This represents a relatively large proportion of children in this population scoring well above the standardized mean in any one skill area. Notice that identification by screening results in a higher percentage of gifted children than the other methods (recall that both the SN and TN/SN groups are screening nominated). Results reveal that while 9% of the screening nominated children (SN + TN/SN) scored in the gifted range (98th percentile), teacher nomination (TN + TN/SN) was successful in identifying only 4% at this level. Assessment of the NO/NO group resulted in a 3% identification rate. Thus, our screening device, compared to other methods (TN and NO/NO), was more than as effective (9% vs. 4%).

Table 1. NUMBER OF CHILDREN DETERMINED TO BE GIFTED BY ASSESSMENT IN AT LEAST ONE SKILL AREA BY THE 98TH, 95TH, AND 90TH PERCENTILE CRITERION - NOMINATION AND AGE GROUP.

	SN			TN			TN/SN			NO/NO			TOTAL		
Percentile	98th	95th	90th	98th	95th	90th	98th	95th	90th	98th	95th	90th	98th	95th	90th
Total	7	26	43	0	8	22	5	13	21	4	10	22	16	57	108
2.0-3.5	1	1	1	0	2	6	0	1	1	3	6	11	4	10	19
3.6-5.0	6	25	42	0	6	16	5	12	20	1	4	11	12	47	89

CONCLUSIONS: These results illustrate several important points about giftedness in inner city populations. Gifted children do exist in economically deprived areas. This is evidenced by the fact that we have identified at least the expected percentage of children scoring in the 98th percentile in the Newark preschool population. This is despite the fact that the assessment measures we use have not been standardized on an inner city population. Gifted children in inner city populations at present are seriously under identified. According to the Newark Board of Education, only 0.4% of children entering first grade currently are being identified as gifted. This is in contrast to the 5% we have found in our sample. Early identification and intervention are crucial in order to ensure that these gifted preschool children do not get lost in the system. The fact that only 0.4% of children are being identified upon entrance to first grade suggests either that identification methods at the elementary school level are not effective or that gifted performance has already been impaired by this time due to insufficient nurturance. Our preschool gifted education program, established to serve the children we have identified, provides one means of helping these inner city children reach their full potential.

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Functional Behavior Among Head Start Children: Looking at What Works *Patricia Haensly, Michael J. Ash, Anne Wehrly*

Intelligence has long been viewed as developing through the interaction between one's genetic potential and the available physical environment. Only in recent years have we begun to realize how extensively the social environment, acting as a filter, affects the interpretation of experience, defines parameters in the development of intellectual competence, and monitors its progression for the individual as well as for society. Children from diverse circumstances, whether because of their culture, ethnicity, or economic situation, frequently experience critically different social environments. This may lead to different interpretations of experience and, unfortunately for some children, decreased educational and economic outcomes through development of different intellectual competencies. If these outcomes are to improve, educators must begin to look creatively at what behaviors work for these children in their primary environment and then focus on adapting schools and instruction to meet these children's characteristics and needs, rather than attempting to adapt children to fit schools.

In an attempt to find a theoretically neutral yet methodologically useful interpretation of intellectual competence, Neimark (1985) described this concept as referring to "the role of fundamental processes accounting for a significant proportion of performance variance on related tasks for all individuals in all contexts" (Neimark, 1985). To clarify further the competence versus performance concept, Neimark speculates that in the superior performance of bright children there is something less tangible than mere intelligence -- something we might call cognitive style, a manner of reaching out to the environment that is particularly effective for them. Conversely, the social behaviors of children shape the type of response they receive from significant adults. Brodzinsky (1985), augmenting this view, states that there is a reciprocal relationship in which style affects the development of competence, and yet competence also has an effect upon style.

One important moderator of competence is the child's ability or inclination to take charge of his or her own cognitive and/or problem-solving activity (Lefebvre-Pinard & Pinard, 1985). This requires interactions with adults and peers in ways that facilitate productive outcomes. Some children seem more proficient at this task than others; gifted children exhibit these interactions in a variety of ways (cf. Albert, 1978; Bloom, 1975; Roeder, Haensly, & Edlind, 1985). When solving problems, gifted children call upon, among other metacognitive processes, executive strategies include seeking help in the right way from the right sources at the right time. As

one parent remarked, "He won't accept our help in solving any problem -- from tieing his shoe to finding out where the ants have made their home -- until he sees the absolute necessity for help; when he does see the need, he seems to know whom to ask and exactly what to ask for!"

Numerous multicultural studies have identified differences in social behaviors and in the cognitive styles of children from different cultures, ethnic groups, and races, many of whom also are exposed to economic disadvantage, thus becoming part of the Head Start population of children. Since gifted children arise from within all cultures, it seems reasonable to assume that many Head Start gifted children have developed productive behaviors that permit them to adapt to lack of material resources and opportunities and which reflect their unique socialization. The "taking charge" behaviors of these young children, honed under adverse circumstances, may, for example, be quite different from those of children reared in the predominant societal norms. Some behaviors, functional in obtaining successful resolution of problems in the child's primary setting and experiencing competence for that setting, may not be perceived or accepted in the major-culture school setting as ones that can advance the child cognitively, socially, or emotionally. Successful matriculation into regular schooling is likely to be inhibited by this dissonance.

Yet another factor that may affect the performance of children from different cultures or economically disadvantaged environments is their perception of task objective. Lefebvre and Pinard & Pinard (1985) believe that a particularly critical moderator of competence that comes into play as an individual activates his or her metacognition to perform a task is the intent or defined objective he or she holds for the task. When the young child does not hold the same objective for a task as does the adult, that child's performance may be deficient according to the adult's objective but satisfactory for the child's objective. The child's objective for the task will regulate the strategies selected, the desired endpoint, and even how hard he or she needs to work on the task. Regardless of the type of family background, young children often define their task objectives counter to those set by teachers, test administrators, and others not out of defiance or resistance but because their as yet egocentric limitation does not permit them access to a view of these objectives from the adult's perspective.

The role of parents in the process of competence development appears to be critical and we may assume that the families of those preschoolers who have developed successfully in diverse and/ or disadvantaged environments make just as great a positive contribution to development of adaptive behavior as is made by those from advantaged environments. Therefore, it is well for us to consider how to encourage and foster the diversity in family behaviors that contribute to extraordinary development and even precocious competence, no matter what the setting. Raven's studies of educational home visiting (1982) give us insight about this task. His studies have demonstrated that too much information and direct assistance tended to depress mothers' feelings of competence and worth, thus contributing to less effective interaction with their children. Advice to parents must reflect the recipient's familial values and patterns of behavior.

In this paper we first discuss current findings on Head Start children identified for a summer program for gifted preschoolers over the past five years, regarding their identification process and assimilation into a program that included three to four times as many advantaged preschoolers. Second, through data from an extensive set of visits using the HOME instrument (Wehrly, 1982), we have tried to sort out factors among both parents and children that seem to associate with higher levels of competency or functioning in that primary setting, and to examine using additional instruments the current functioning of several children following their experience in the program for gifted preschoolers. Third, we attempt to establish a more productive mental set regarding Head Start children by considering the functionality rather than dysfunctionality of behaviors among Head Start children.

METHODS: MINDS ALIVE, a cognitively oriented program sponsored by the Institute for the Gifted and Talented at Texas A&M University has been designed to provide young gifted children (3- and 4-year-olds) with a developmentally appropriate yet cognitively advanced school-based experience. The curriculum of this program is structured as an opportunity to experience advanced problem solving through exploration, play, and discovery, enhance emotional development and social skills through interaction with other cognitively advanced age peers, encourage developmentally appropriate physical skills that might be neglected by a focus on intellectual activity, and nurture and foster rich language experiences and creative response styles within the context of intellectual activity.

Children (20 to 22) are identified each year for this month-long half-day program. Sixteen of these children over a period of four years were identified through local Head Start Programs. In general, children are identified through a parent questionnaire (an adaptation of the Seattle Project Parent Questionnaire, Child Development Research Group), a nonverbal intelligence test (Raven's Colored Progressive Matrices, RCPM, 1985), and an academic skills readiness instrument, the Peabody Individual Achievement Test (PIAT, Dunn & Mardwardt, 1970). Head Start children have usually been identified by Head Start Home Visit teachers using characteristics lists, observation of skills exhibited in the Head Start setting or in the child's home, and various behavior rating scales, supplemented by recommendation rationale from the Head Start directors. Once in MINDS ALIVE, these latter children are administered the Raven's CPM, PIAT, and occasionally parent questionnaires, completed by an interview process in order to examine and better understand their current specific abilities in relationship to those of the entire group of children. The Raven's CPM and the PIAT, out-of-age level tests for this age child, were used to assess advanced development for age; standardization norms for both of these instruments were then used to identify 50th percentile age equivalents, thus deriving "months advanced for age scores."

Similarly, information from the Parent Questionnaire was transformed into estimated developmental age equivalents, and derived "months advanced for age scores" were obtained.

Data were organized to examine questions of appropriate identification measures for this population of children; type, quantity, and quality of parent involvement; social adjustment of the child in the program from teachers' viewpoints; and prognosis and reality of assimilation into subsequent school settings. The preschool version of the Home Observation for Measurement of the Environment (HOME) (Caldwell & Bradley, 1984) was administered to two selected gifted former Head Start children now enrolled in other school settings. HOME data for these children are compared to data collected on nongifted (n=40) Head Start children. Through a structured interview, conducted with the parent(s) of these children, we examine how the children have adapted to public school. Specifically, the interview provides information to examine how the survival skills developed by these gifted Head Start preschoolers interface with the expectations of the public school system. Information obtained from teachers of the students through a rating scale (Harter, 1985) provides a measure of teacher perceptions of behaviors seen as functional in the home setting, and of those observed as functional or dysfunctional in the school setting.

RESULTS: The data gathered on the 16 Head Start children show that careful observation by sensitive Head Start personnel have accurately identified children who exhibit well-developed learning characteristics and abilities advanced for age among their environmental peers, and occasionally among all of the children screened for the program (Haensly, 1991). While these abilities were not distinctly reflected in the test results, that is, on the RCPM and PIAT, the children fared well in the program, contributing in a variety of ways to the intellectual, social and creative climate. Openness or receptivity to new and challenging experiences, alertness and initiative and zest, and individuality of their responses characterized their interaction with the program. These attributes compared well with those of all of the children in the program.

Parental roles showed some differences between Head Start participants and remaining children, but also many similarities, such as high expectations and encouragement for their children's activities, desire to provide enrichment for their children, time spent with and on the children, and purposeful listening and verbalizing with their children (Haensly, 1987). Some social behaviors presented some of these children with difficulties in acclimatizing to the brief month-long program (not unlike their more affluent counterparts); however, most of their behaviors fit well with the explore-discover-play characteristic of this program (Haensly, 1991). Although, in retrospect, most of the children in the program exhibited dysfunctional behavior to some degree at some time or other, as might be expected from any group of preschoolers, teachers were more likely to express particular concern about the Head Start children. When behaviors were viewed as inappropriate by the teachers, even those seen as signals of independence and goal-directed, the expressed teacher belief was that these behaviors would cause problems as the children moved on into more structured public school classrooms, perhaps with less effective advocacy and guidance from their "outside of the system" families.

A comparison was made between the mean HOME subscale scores for 40 nongifted Head Start children and two gifted Head Start children who were followed into their public school experience, one a Hispanic child and one an Anglo from an economically disadvantaged family. Because of the small sample of gifted children, statistical procedures for comparison were out of the question. However, it can be noted that in all subscales of the HOME, the gifted children's home environment was more enriched. All HOME subscales for the gifted Head Start children fell in the middle half or upper quartile when compared with the norm sample. The majority (6 out of 8) of the nongifted mean subscale scores fell in the lowest quartile. Particularly evident are the differences on subscales referring to stimulation. Clearly the homes of the gifted Head Start children are very important in the type of learning environment and social climate which they provide. Although with such limited data we cannot suggest a causal link between quality of HOME environment and advanced development, the data support other research findings in this direction and suggest a means for validating these indicators.

Interviews conducted with the parents of two gifted Head Start children who had made the transition into public school provided insight into how this transition had proceeded. Again, with cautions about drawing conclusions from such an inadequate sample, both sets of parents described an overall relatively problem-free transition experiencing minor social adjustment issues that needed to be dealt with initially. Both children were performing very well academically. Results of the Teacher's Rating Scale of Children's Actual Ability (Harter, 1985) for the two gifted children reflected children who had adapted quite well behaviorally and scholastically in the public school setting. One of the children had slight problems with social acceptance, which might have been predicted from her particular personality and behaviors in the MINDS ALIVE program, as well as her limited preschool playtime with age peers.

CONCLUSIONS: Educators must consider the most effective manner of nurturing the adaptive, functional behaviors of Head Start children in such a way that these children will be able to comfortably "adjust the register" of their behavior for school settings without losing or erasing the strength of that behavior in facilitating their competency development. As a rather straightforward, simple example of adaptive and functional behavior, extreme assertiveness or even aggressiveness may have been an essential step in obtaining materials or help in problem-solving. How might that strength be retained, yet expressed acceptably in the school setting? Fostering leadership and delegating helping tasks, allowing these children to make the most of initiative and the ability to verbally direct peers is but one possibility. It is the direction and type of data rather than extensive findings that we wish to emphasize in this

paper, as well as the possibilities of learning about functionality from settings such as the MINDS ALIVE program. In this program, teachers examine their perceptions of functional behavior by restructuring their views on what constitutes gifted, precocious, adaptive, and appropriate schoolroom behaviors among these children and especially at this age. Acculturation must be taken into account and understood from the sense of functionality and contribution to the climate of schools, rather than as a dysfunctional process to be "fixed" by a schooling system insufficiently acclimatized to the value of diversity in behaviors and values arising from the child's individual social experience.

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The Effectiveness of Teacher Training Workshops to Aid in the Identification of Highly Able Preschool Minority Children *Ikechukwu C. Ukeje, Candice Feiring, Michael Lewis, Barbara Louis*

Historically, teachers have not been found to be good at identifying gifted children who are both multifaceted and multivaried in their abilities. Some general characteristics of gifted children include an ability to construct and handle abstractions, work independently for long periods of time, and sustain greater lengths of attention. These children tend to be highly expressive, good humored, imaginative, verbally creative, curious, risk- taking, attention-seeking, and extremely confident in their abilities. They are also fluid, flexible, and original thinkers who are insightful, evaluative, critical, and skeptical in their perception of events. When asked to evaluate children, teachers tend to focus more on school performance and social desirability behaviors and not on intellectual aptitude. Hence, students with high reasoning aptitude and excellent conceptualization skills may occasionally be overlooked. Furthermore, teachers tend to nominate socially conforming children as gifted and consider stubborn, hyperactive, independently minded, disruptive children as problems rather than as potentially gifted children. Physically smaller and introverted children also tend to be overlooked by teachers. As far back as 1958, Pegnato held the view that many teachers generally confused achievement with aptitude and did not understand the concept of intelligence, or did they have reasonable criteria for making judgments about a child's intellectual abilities. Chronological age factors were noted to often influence teachers' decisions.

Day care teachers working with young minority preschool children in the inner city of Newark, New Jersey, are often poorly trained in what constitutes normal and advanced development in their young students. It is therefore not surprising to find that gifted children from disadvantaged backgrounds are not likely to be identified by their teachers. Present prevalence data on giftedness indicates an over-representation of middle- and upper- class whites in gifted programs and an under-representation of lower-class minorities, particularly African-Americans, in these programs. For instance, in Newark, New Jersey, a predominantly educationally disadvantaged minority community (where this study was done), only 0.4% of eligible first graders in public school are being identified as gifted, even though one would have normally expected this figure to be at least 2%. The Education Commission Report (1972) recommended teacher selection to be one of the most practical methods for making referrals. However, the report further pointed out that in order to be effective, teachers must be trained to be better observers of essential data. Research studies (Ukeje, 1990; Jackson, 1983; Gainous, 1981) have pointed out that teachers' abilities to accurately identify gifted children improved when they were provided a better understanding of the concepts of giftedness through educational training programs.

The purpose of this study was to evaluate the effectiveness of two workshops aimed at helping teachers recognize the signs of advanced development in their preschool aged students. Trained, as compared to untrained, teachers were expected to be more effective in identifying children with advanced skills.

METHOD: A total of 108 teachers from 17 centers in the greater Newark school district participated in this study. The teachers' students, 675 preschool African-American, educationally disadvantaged, male and female lower SES children between the ages of 3 years and 5 years also participated. Fifty-eight teachers received training and 50 did not. All teachers were asked to nominate children from their classrooms they felt were advanced, indicating why they thought a particular child was advanced. The trained teachers made their nominations after completing the training program. The children nominated by both trained and untrained teachers were then assessed using standardized testing in order to evaluate the effectiveness of training in helping teachers correctly identify advanced students. A control group of 114 randomly selected children was also selected for assessment.

Trained teachers received two workshops, each one and a half hours in length. In the first workshop, teachers were exposed to general developmental issues in the areas of language, cognition, play, socio-emotional, and motor development. The onset of developmental milestones during the preschool years was noted and discussed. A grid summarizing aspects of these milestones and developmental domains was presented during workshop 1. An exercise in which participants were required to match anecdotal descriptions of children's behaviors with the appropriate developmental domain and time of onset was part of the first workshop. The second workshop focused on characteristics of advanced skills performance for specific age groups. An exercise in which teachers were asked to take descriptions of children, identify their skill level in specific areas, and discuss their reasons for selection was also part of the second workshop. Following the second workshop, teachers were asked to nominate children from their classes who (in their assessment) possessed the characteristics outlined in the workshops for advanced performers. They were further required to state the reasons for each nomination they made.

Out of 182 children who were evaluated, 21 children were nominated by the trained teachers, 47 by the untrained teachers, and the rest (114) randomly selected from the sample pool. Each child received two assessments during which he or she was given a combination of two out of three standardized tests (McCarthy/WPPSI or McCarthy/Binet) depending on age. The younger children (those who were not yet 4 years old), were given the McCarthy and the Stanford Binet, while the older children (those above 4 years old) were given the McCarthy and the WPPSI.

RESULTS: Children at the 90th percentile on at least one skill area were considered advanced, although the 95th and 98th percentile cut-offs were also examined. Because standardized tests are known to be biased in estimating the strengths of minority populations, these broadened criteria for advanced skill development seem justified.

Identification effectiveness is the ratio of confirmed advanced students (based on McCarthy/WPPSI performance) nominated by the teachers in the research sample to the actual number of advanced children in the classroom, as assessed by a multidimensional assessment battery.

$$\text{Effectiveness} = \frac{\text{number of gifted identified by teacher}}{\text{number of confirmed gifted}}$$

Thus, if a teacher correctly identified three out of a total of five confirmed gifted children, it follows that the teacher's identification effectiveness ratio is 0.60, or 60% Identification efficiency is the ratio of the confirmed advanced students (based on McCarthy/WPPSI performance) nominated by the teachers in the research sample to the total number of nominations teachers actually made

$$\text{Efficiency} = \frac{\text{number of gifted identified by teacher}}{\text{number of students nominated}}$$

Thus, if a teacher correctly identified three children who were confirmed gifted, but in the process nominated 15 children as gifted, then the teacher's identification efficiency ratio is 0.20, or 20%.

Results of the effectiveness ratio indicates no difference at the 90th and 95th percentile. However, trained teachers were more effective at the 98th percentile ($X^2 = 2.00$, $p < .05$). Efficiency-trained teachers were more efficient at the 90th ($X^2 = 3.64$, $p < .01$), 95th ($X^2 = 2.92$, $p < .01$), and 98th ($X^2 = 3.38$, $p < .01$) percentile.

DISCUSSION: Although the training workshops did not improve teacher identification effectiveness at all levels, its impact increased as the selection criteria became more stringent (being effective at the 98th percentile). This is encouraging and indicates that the more advanced a child's abilities are, the greater his or her chance of being identified by trained teachers. Of particular interest was the fact that trained teachers with more education (at least two years of college) profited more from the workshops than teachers with less (high school degree) education (54% vs. 32% effectiveness ratio for high- vs. low-educated teachers from trained group).

Another notable outcome was that nominations from trained teachers could be used as an initial screening for selecting potentially advanced children based on the observed efficiency ratios. In general, this workshop provides an encouraging beginning about the use of workshops for improving teachers' ability to identify advanced children eligible for gifted programs. Future workshops would focus on improving teachers' evaluative skills and helping them to facilitate advanced students skill development. The work-

shops further provided feedback about the varied educational backgrounds these day care teachers had and the need to provide them with more in-depth workshops on normal and advanced development. In addition, teachers who attended the workshops had a broader focus about markers indicative of advanced functioning. In evaluating the strengths of children, they tended to emphasize verbal and play skills rather than focus on memory, as the untrained teachers did.

CONCLUSIONS: This study provided some feedback about the minimal amount of information preschool teachers have about early child development, an outcome one might expect particularly after reviewing the educational backgrounds of the majority of these preschool teachers. Over 70% of those who participated in this study had a high school diploma as their highest educational level. Consequently, they had very little exposure to developmental psychology concepts or early childhood education. From the results of this study, one can justify the need and efficacy of in-service training workshops for teachers at this level. These workshops would enable preschool teachers to develop further professionally and acquire essential early developmental concepts without having to disrupt their teaching career. Finally, this study helps put to rest the elitist concept associated with the concept of giftedness. The results above demonstrate that the prevalence of giftedness within minority populations parallels that of the middle-class population. Thus, educators are morally obligated to continue the task of developing instruments and strategies for finding and providing enrichment services to bright children from our minority and educationally disadvantaged communities.

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Discussion *Mary M. Frasier*

I am going to highlight a few points. I am Mary Frasier, a professor in the Department of Educational Psychology at the University of Georgia, where I work with the graduate degree programs in gifted and talented education. I am also immediate past president of the National Association for Gifted Children, and at one of the four universities cooperating in a research study, the National Research Center for Gifted and Talented Education.

First, the papers presented proactively answer some questions regarding those children whose behaviors clearly exemplify performance levels that are above average within Head Start populations. They have taken you through three major problems. They are three As. There is a fourth A that goes with these. One deals with assessment, one deals with access, and one deals with attitude. Overall, the paper that Haensly and Wehrly presented was related to attitudes. We know that we must get people to begin to be sensitive to the fact that these children are within these various population groups. Children who had difficulty with language are the children most often missed, minority children. Low socioeconomic children, as well as limited English proficiency students are ones that we are looking at in some of our various research activities around the country. When we talk about access, clearly Ukeje's paper dealt with this. If we are going to provide access for these children into gifted programs, we have to have teachers who are trained to know what to look for. And to look everyplace it may be found. If what he has done has been as effective as it has been with persons who have had less than a bachelor's degree, then how much more effective it would be with people with additional training in child development. One of the questions we would challenge him with is ways in which he can get all teachers to be more sensitive to the training that they need to look at giftedness and gifted children.

Louis's paper deals with assessment. I think one of the key things to mention, even before you get to alternative methods, is that even using traditional methods, we can find these children. We recognize that giftedness is a very complex, multifaceted phenomenon. We are finding that it is critical that we move away from the one kind of way of determining it or that the children must hit the 98th percentile in order to be accepted into gifted programs. Some of the current research would suggest that people are more concerned about looking at gifted behaviors. Just by virtue of saying behaviors, it suggests that we must use a multitude of devices in order to locate children. There is a lot of emphasis on the issue of construct, which many of the papers pointed out.

It was mentioned throughout the papers that communication is both receptive and expressive. Some communication we can find by using tests. If we go beyond that and look at the various ways in which children use language, then we must add interviews to our methods. We must also add children's own way of writing their information down regarding how well they can perform, even if it is symbolic. No one ever asked a child who is the greatest writer or poet that he or she might know. No one ever asked them how many

words they had in their vocabulary. That is one of the ways we get at artistically gifted students. If you look at the construct of communication, then you would have persons like Jim Gallagher, who has suggested that it is meaningful manipulation of a symbol system. I can look at that meaningful manipulation in an art area, or in an area that uses numbers, or in an area that uses words, and find those children who are in that upper range in terms of how they manipulate symbol systems. They also talked about insight; children who have insight into things and the things they are able to observe. They talked about inquiry. They were talking about children who inquire into information in a variety of ways, not just through the number of questions they asked, but the various kinds of ways they explored their environment.

I would suggest that rather than fixing Sampson, we need to fix people to be more receptive to the various kinds of ways in which learning takes place. How do we create environments in which those kinds of things can express themselves? We talked about reasoning skills, problem-solving skills, and memory. One of the ways that that is expressed in our field is to talk about children who are able to retrieve information in the solving of problems. And when we look at it across these children, even though they come from what we call adverse situations, poor homes, these are children who are able to retrieve information from a number of different sources and bring it to bear on the problems. We have to become more receptive to that information. We need to know what to look for as well as to be reminded that these behaviors can be found within these particular populations of children. Sampson fails abysmally if it is not a good, insightful, knowledgeable teacher who understands educational needs. How are we going to demonstrate to an administration that education is a sophisticated and professional enterprise that is not going to be solved by decentralization and asking lay people to take charge. There are two things we could do. The people who are making some of the decisions regarding what happens to the children, whether you are talking about for gifted or not, need to hear from us. We need to let them know if we think they missed the boat, how they missed it, or maybe how badly they missed it.

AUDIENCE DISCUSSION

The ability to both identify and nurture gifted minority children in the current educational system was brought into question. To some audience members, the first goal of the Administration's Readiness 2000 -- "Ready to Enter School" -- might be viewed as a desire to mold children to fit into our current system which tends to view children from the point of view of dysfunction. This is a view that severely limits the valuing of differences that are often found in poor, minority children.

Ukeje used the example of the variety of ways to approach teaching art to children to illustrate how one might identify a child who is gifted in that area. He pointed out that a child's drawing is an external representation of an idea and can be viewed in many ways. Drawings show a child's ability to organize visually, which can be a sign that s/he is gifted. In the program presented here, Ukeje stated that the children are always encouraged to talk about their ideas, but he cautioned against asking a child to describe his/her drawing. He feels this implies that the person asking has already made a judgement. Presenters and audience agreed that children should be given the freedom to choose the ways in which they express their internal ideas.

Another audience member commented that in her experience what is identified as gifted is often related to prior school experience. Therefore, she felt that it would be important to know what percentage of children in gifted programs have had prior schooling and compare that to a group of children in regular programs.

Panel 108 HEALTH ISSUES IN HEAD START

Chair: **Ruth Robinson**; *Discussant:* **John Pascoe**

Nutrition Surveillance in Head Start: An Effective Tool For Public Health Planning *Jean L. Wiecha, Ruth Palombo, Karen Peterson*

The goals of this presentation are to define and describe pediatric nutrition surveillance at the Massachusetts Department of Public Health (MDPH) and to demonstrate how nutrition surveillance in Head Start can help address the nutrition and health needs of low-income preschool children and their families. We hope to demonstrate the unique value of Head Start data in describing the nutritional status of low-income American preschoolers, and end with thoughts on how the MDPH model could be expanded and replicated in other states as well as nationally.

The Pediatric Nutrition Surveillance System (PedNSS) is a program coordinated nationally by the Centers for Disease Control (CDC) in Atlanta, Georgia. PedNSS identifies and monitors nutritional risk indicators among predominantly low-income children in publicly funded health care settings. Data are collected by states on an ongoing basis and submitted to CDC, which then compiles national estimates. While participation is voluntarily, at this time 43 states and territories participate in PedNSS. This is the nation's only means of monitoring measures of nutrition among children who are commonly considered at high nutritional risk due to poverty, growth, and minority race or ethnicity. Certain characteristics of PedNSS are worthy of note. First, as in most forms of public health surveillance, data collection for PedNSS is ongoing, voluntary, and non-representative that is, statistical sampling techniques are not employed . Rather, the data that are obtained are those that are accessible. In practice, most PedNSS data collected nationally come from the Supplemental Food Program for Women, Infants, and Children (WIC) (71%), and from Early Periodic

Screening, Diagnosis, and Treatment programs (EPSDT) and Well Child Programs (29%), partly because states are readily able to aggregate client information from them. Less than 1% of PedNSS data are from Head Start. Thus, most PedNSS data are clinical in origin, and therefore may be biased toward including children who have pre-existing health or nutritional risks. Another key characteristic of PedNSS and of public health surveillance in general is that it does not end with data analysis. Instead, components of surveillance also include rapid dissemination of findings for the purpose of triggering interventions in a timely manner.

In the future, we would like to see more data in PedNSS coming from Head Start. Several factors justify this. First, Head Start measures children's heights, weights, and iron status regularly, so that relevant data are available without changing the existing system. Second, Head Start is an excellent setting for responding to the health and nutrition problems of children, because of its provision of health and nutrition screenings and follow-up and the fact that children attend Head Start on a daily basis. Third, Head Start serves children considered "high risk" because of their poverty and because of their rapid growth, which makes them particularly vulnerable to nutritional insult. Finally, we re-emphasize that generalizability of findings to other low-income children is enhanced by collecting data from a non-clinical population.

METHOD: Data we report are from "Nutrition Counts," the pediatric component of the Massachusetts Nutrition Surveillance System, which is coordinated by MDPH. From 1987 to the present, the majority of Nutrition Counts data have come from local Head Start programs in the Commonwealth. MDPH recruits Head Start programs from around the state to participate in Nutrition Counts. Once a Head Start program volunteers, MDPH provides training in accurate weighing and measuring of children and in the use of the Nutrition Counts data form. If programs lack height-measuring equipment that meet MDPH standards, metal tapes and head blocks are also provided. Head Start programs complete Nutrition Counts data forms using information from their fall or spring nutrition screenings. For each child they provide date of birth, sex, height, weight, hematocrit or hemoglobin. Other data requested are provided if they are available (race/ethnicity, blood pressure, birth weight, and participation in means-tested benefit programs and health insurance). The data forms are submitted to MDPH. Four to six weeks after submitting data, Head Start programs receive a report that shows results of their screenings, including prevalence estimates and lists of individual children with overweight, underweight, short stature, anemia, or other problems (children are identified by code only). At the close of the school year, MDPH aggregates all of the Head Start data to produce an annual report, showing the prevalence of these outcomes statewide as well as the proportions of children enrolled in WIC, Food Stamps, Medicaid, and other programs.

This presentation focuses on evidence of poor growth outcomes and malnutrition from Nutrition Counts. Children with these outcomes are said to be at risk because diagnoses of individual cases cannot be made from single measurements. MDPH recommends that Head Start programs confirm abnormal measurements and follow up with parents and health care providers when appropriate. Preventing and treating these conditions can improve children's current health and can help prevent chronic disease in adulthood. Included are overweight, underweight, short stature, and anemia.

RESULTS: Results from three school years (1987-88, 1988-89, 1989-90) are presented. These school years coincide with the state fiscal year and are referred to as FY88, FY89, and FY90, respectively. Because participation in Nutrition Counts is voluntary, the number of local programs involved varied from year to year, as did the number of measurements. Out of 35 Massachusetts Head Start programs, nine participated in FY88, providing heights and weights for 1,605 children, while 19 programs participated in FY89 (3,552 children) and 16 programs in FY90 (3,181 children). Seven programs participated continuously. Iron status data were not available for all children.

Head Start data submitted to Nutrition Counts in FY88, FY89, and FY90 showed that growth problems were common among Head Start children. Overweight (three year range, 9.6%-13.3%), short stature (7.2%-8.6%), and probable anemia (9.8%-12.2%) were consistently elevated above the levels expected from reference populations (5% for each of these measures). These elevations were all statistically significant ($p<0.05$). Conversely, the prevalence of underweight was significantly lower than expected, at about 1.7% each year. The three years of data demonstrated significant upward trends in the proportion of children who were overweight or had probable anemia (chi-square for trend, $p<0.05$). These aggregate trends mask differences that became apparent when data were stratified by race and ethnicity. Such analyses are in process at MDPH, and the results reported here must be considered preliminary. The racial composition of Nutrition Counts children was different in FY90 compared to the previous two years. The proportion of whites declined from about 60% in FY88 and FY89 to 42% in FY90. An increase in the proportion of Blacks (from about 10% to 22%) partly offset the decline in the white population, with the remainder of the decline accounted for by an increase in the proportion of children with unspecified race. The proportion of Hispanic children was stable at about 25% over the three years.

When nutrition outcomes were analyzed by race and ethnicity, the prevalence of overweight was highest among Hispanics in each year shown, with a significant upward trend in this group (chi-square for trend, $p<0.01$). Black children had the second highest prevalence of overweight each year, while white children had lower but still elevated levels; in these groups, overweight did not increase in prevalence. The prevalence of probable anemia was highest among black children each year. They were the only group to demonstrate a significant increase in probable anemia over time ($p<.01$).

DISCUSSION: The importance of identifying and monitoring these trends lies in how the data are used. As stated earlier, one of the goals of surveillance is to trigger interventions to address the problems that are identified. The remainder of this paper discusses the public health significance of some of the activities of Nutrition Counts. These activities are not meant to be an exhaustive list of what could be done, but they do demonstrate some of the possibilities. MDPH has released three annual Nutrition Counts reports that summarize statewide findings, discuss their significance, and offer recommendations for addressing the problems identified. These reports have been widely disseminated within Massachusetts to state officials, Head Start programs, regional USDHHS staff, legislators, and community advocates. They are Massachusetts' sole source of data on the nutritional status of low-income preschoolers and hence are of value whenever municipal and statewide indicators are needed, as for grant writing or research proposals. Wider national dissemination of the reports has also occurred, through the Association of State and Territorial Public Health Nutrition Directors and listings in the USDHHS Maternal and Child Health Clearinghouse.

Data from Nutrition Counts have been used by the press and by community advocates to publicize problems of childhood malnutrition in Massachusetts. For example, the Boston Globe and the Boston Herald, our largest newspapers, have reported findings on anemia, short stature, and non-participation in WIC in articles on state funding for the WIC program and for MDPH's network of clinics treating children with failure to thrive. Because of the prevalence of overweight and probable anemia in Head Start, MDPH has developed and distributed materials to Head Start programs relating to these problems. The materials range from peer-reviewed journal articles to low-literacy nutrition fact sheets and are intended for use by the programs and parents of affected children. Analysis of Nutrition Counts data can reveal special groups in which problems are especially severe. For example, we described the high prevalence of overweight apparent among Hispanic children in preliminary analyses. In the coming months we will be completing these analyses and seeking culturally appropriate methods of dealing with such issues.

Perhaps the most exciting applications of Nutrition Counts data have come from Head Start programs themselves. For example, Cambridge Head Start, alarmed by the fact that almost 20% of children enrolled were overweight, is working with MDPH and local experts in pediatric growth and nutrition to develop a pioneering family- and staff-centered wellness project. The project seeks to reduce risks for overweight by improving family and staff nutrition knowledge and habits, increasing children's physical activity, and changing Head Start menus. Replication of the project in other settings should be possible following evaluation in two years. The viability of local efforts like this one is evident from the fact that the Cambridge project has recently been funded and will begin in September 1991.

Two other benefits of Nutrition Counts should be noted. First, the training, equipment, reports, and data-quality monitoring that Nutrition Counts provides have helped to improve identification of children at risk for poor growth and nutrition outcomes. Also, Nutrition Counts has stimulated interagency coordination around preschool health and nutrition issues. Ties have been developed, not only between MDPH and local Head Start programs, but also with regional Health and Human Services staff, USDA's Expanded Food and Nutrition Education Program (EFNEP), the Commonwealth's Bureau of School Nutrition Services, and local experts in childhood nutrition. For example, a guide to services available to Head Start from MDPH, HHS, EFNEP, and the Bureau of School Nutrition Services is in preparation and will be distributed to local programs in fall 1991.

CONCLUSIONS: The value of carrying out nutrition surveillance in Head Start is: Head Start is a non-clinical, well-child program serving an at-risk population; Head Start already collects nutrition screening data; and Head Start is an appropriate setting for responding to nutrition problems identified in individuals and groups. Because of these valuable attributes, Head Start data should comprise a greater proportion of the data in CDC's Pediatric Nutrition Surveillance System (PedNSS). However, there can be no question that the ability to effectively carry out nutrition surveillance in Head Start is challenged when participation is voluntary and data collection done by hand.

To make nutrition surveillance work best for Head Start programs and Head Start families, higher levels of participation and streamlined methods of data collection will be necessary. For this to occur, strong support is needed not only from state Maternal and Child Health (MCH) agencies, but also from national and regional Head Start. On our wish list is a model where a nutrition surveillance initiative emanates from regional and national Head Start, in cooperation with state MCH agencies and the Centers for Disease Control. Such a model could encourage higher participation by local programs and could work within current Head Start reporting requirements to streamline data collection. It could also encourage local programs' use of the data for program planning through the development of performance standards encouraging this practice. Another benefit would be to give regional and national Head Start officials access to standardized data that could inform and strengthen the nutrition component of Head Start. Finally, this model could strengthen coordination between Head Start and state MCH agencies, which can provide Head Start with technical assistance in responding to findings or referring children to appropriate services.

Is There Truly an Epidemic of Childhood Lead Poisoning? *Claire B. Ernhart, Sandra Scarr*

The media are informing us with increasing frequency that large numbers of children are lead poisoned or, somewhat less dramatically, that numerous children are less intelligent and/or less healthy because of lead exposure. On the basis of these media reports one would think that there is an increased incidence of lead-related fatalities, lead encephalopathy, or symptomatic lead poisoning, or that, at a minimum, there are increases in the indices of lead exposure. This is not so. Quite to the contrary, there has

been a highly significant drop in indices of childhood lead exposure through the past several decades. The increased frequency of public statements reflects a planned redefinition of lead poisoning, due to be published shortly by the Centers for Disease Control (CDC). The dimension on which the definition is based is blood lead (PbB). The CDC redefinition includes specified societal and medical responses to be triggered at new cut-off values on the PbB dimension. The current cut-off value for concern of 25 μg/dL will be changed to 10 μg/dL.

The implications are startling. This shift will increase about 10-fold the number of children classified as being in the concern range -- the range which some advocates now call lead poisoned. To identify all of these children, the recommendations include an essentially universal screening program with repeated screens for many children. Screening will require a shift from the inexpensive fingerstick method to the difficult and costly venous blood sampling. Depending on the results, extensive programs of education and medical monitoring will be indicated. There will also be an increase in the number of children treated with a chelation regimen that is expensive, requires hospitalization, is painful, and may have adverse side effects. No matter how they are implemented, these programs will surely divert resources from other programs that do benefit children, most particularly disadvantaged children. These, of course, include the children who are eligible for Head Start but cannot be enrolled because of budgetary reasons. Furthermore, because children in the range now being redefined as lead poisoned often live in older houses that have some residual lead in paint, it is recommended that a large portion of our housing stock be abated by specially trained crews using costly techniques. These procedures will certainly lead some property owners to abandon property at a time when homelessness is adversely affecting children, among others.

We ask, then, how great is the reason for concern? Or is this a concern with little reason? The answer lies in studies that are basically correlational, i.e., studies that relate measures of lead level to scores on standardized tests. It is, of course, not that simple. Lead exposure is related to sociodemographic variables, including parental intelligence, race, family size, etc. The quality of the caretaking environment, reflecting the way children are reared, is a major correlate of lead exposure in studies that have included it. Given the known relationship of these variables to intelligence, the control of confounding is a critical and difficult issue. The possibility that other variables, as nutritional status, may be confounding our findings merits more attention than it has received. Other issues of methodology, including variable selection, measurement error, and the choice of statistical methods, have been given varying degrees of attention by different investigators. These circumstances have differing effects on the risks of type 1 and type 2 error. Our focus will be on some of the studies that are reasonably recent. Primary attention will be given to the issue of consistency, within and between studies, and to an instance of lack of credibility in research.

There are nine prospective studies of lead effects. All cohorts started at or before birth with some measure of fetal exposure. Two of the nine studies, those in Mexico City and Yugoslavia, will be important in that lead levels in these communities are moderately high. These investigators have thus far reported little data beyond the neonatal period. Two other studies, those conducted in Glasgow and in Nordenham, were limited to sampling only of prenatal PbB. Prenatal PbB was not related significantly to Bayley MDI scores at age 2 in the Glasgow Study or to WISC-R scores at ages 6-7 in the Nordenham Study. The Boston, Cincinnati, Cleveland, Pt. Pirie, and Sydney studies have provided numerous data points over time for the lead variables and for the primary outcome measures, i.e., measures of cognitive development. This makes it possible for outcomes to be related to early as well as to concurrent indices of exposure. These groups used designs that were similar and thus might permit greater comparability than would be the case for totally independent efforts. At the same time, the differences between studies, as in the range of PbB sampled, may prove to be helpful in describing the limits of effect. PbB values, a critical factor, range, at 24 months, from a mean of 7.0 in the Boston Study to a mean of 21.1 in the Pt. Pirie Study.

In order to evaluate the consistency within and between studies we assembled in a matrix format all published information on cognitive effects in each study. The cells of the matrices include each plausible analysis in which PbB preceded or was concurrent with the outcome measure. Since dentine lead (PbD) is considered to be cumulative over the late fetal and preschool periods, precedence cannot be specified. Each reported analysis was coded into the arbitrary classifications, significant at alpha ≤ 0.05, or ns, for non-significant. In a number of instances results of specific analyses have not been reported. Since it is unlikely that these analyses were not conducted, it is reasonable to infer that these results were not significant, or that an effect contrary to hypothesis was found. Inspection of the matrices indicates that relatively few of the numerous analyses conducted were significant. None of the investigators used systematic methods, as multivariate analysis or adjustment of the alpha level, for the control of study-wise error rate or type 1 error, though the issue was considered by the Cleveland group. The Sydney group found no significant effect in any analysis. Inspection of the results for the four studies with some significant findings indicates that there is little consistency within and between studies. The lack of agreement is seen both with respect to exposure measure, as indicated by the rows of the matrices, and the age at which an effect is manifest. The results in late preschool show no consistency with respect to vulnerability in verbal, as opposed to performance subscales. Of the two studies with PbD data, one reported a significant effect, the other did not. Of these five studies, the one that has received the most attention in the proposed CDC guidelines is the Boston Study because the range of PbB extends below the proposed CDC level of concern (10μg/Dl).

Of the cross-sectional studies, one was of children in Edinburgh, Scotland. The mean for PbB was 10.4 μg/dL. In this well-conducted study there was a statistically significant effect for PbB ($N = 501$, $p = .003$, one-tail). The first and tenth deciles of blood lead were 5.6 and 22.1 μg/dL; the adjusted difference between these in scores, which are normed in the manner of IQ, was 5.8 points.

Between the first and third quartiles the difference was 1.9 points. The investigators emphasized that the PbB effect was small relative to the other factors that were found to be more highly related to test scores. Findings for this study are not wholly consistent, however, in that no significant difference was found for PbD (N = 259, t = 0.6). Nevertheless, this is the most credible of the studies reporting an effect for low-level exposure. The European Multicenter Study is quite interesting in that it integrated the results of eight different cross-sectional studies using a common protocol in widely differing communities. With a total sample size of 1,698 children, no significant effect on the WISC was obtained (t = -1.62). In the results presented by group, the regression coefficient for only one of the eight groups was significant. This group, from a smelter town near Athens, Greece, had the highest lead level (geometric mean = 22.0 μg/dL). The plotted values for this group suggest a possible threshold above 25 μg/dL. With respect to the issue of lead levels at the to-be-redefined CDC level of concern (< 10 μg/dL), there was no hint of an effect among the four groups with plotted values in this range. Teeth were collected in six of the eight studies, but "surprising discrepancies" were found and analyses for PbD were not reported.

These are among the more important of the recent cross-sectional studies. The findings are not consistent. We cannot say that there are no effects. We can say that if there are effects they are subtle and diverse. One individual, Herbert Needleman, has been extremely active in raising the alarm. He is also an major participant in the preparation of the CDC document. This document, as well as other decisions made by the regulatory agencies, relies heavily on a widely cited study 1979 study by Needleman and on a more recent follow-up study of the children in the original research. The former study is the primary basis for statements by EPA and ATSDR to the effect that blood lead levels in the range of 30 to 50 μg/dL will produce a 4-point IQ loss. In the report of the follow-up study, Needleman has stated that children with higher lead levels are seven times more likely to drop out of high school and six times more likely to have significant reading problems. The Boston Study, mentioned above, was originated by and is co-authored by Needleman. These studies are given considerable weight in the documentation for the CDC redefinition.

We are now able to report publicly that we have good reason to doubt the credibility of the 1979 study. The basis for this statement is our report of an abbreviated examination of a portion of Needleman's data. This examination became possible as a result of our services as expert witnesses in a superfund case. A strange thing happened, however, before we could disseminate our report. In an unprecedented action, the Department of Justice sought a protective order in a Federal Court to keep us from revealing our findings. The judge, in a strong statement, ruled in our favor.

The results of our examination revealed three major problems: 1) Improper control of confounding in that relevant variables, including child's age and examiner effects, were deleted from analyses as the series of analyses progressed. This helped to move the analytic process toward statistical significance. 2) Improper exclusion of data, such that groups of cases from the original sample of 270 children tested were systematically excluded. This process was also related to the statistical significance of the findings. 3) Failure to give adequate consideration to the issue of multiple comparisons in the analyses of a very large number of variables. Analyses that did not support the research hypothesis were not reported. We hope that this study will be examined in more depth and that similar scrutiny be given to the follow-up study and the Boston Prospective Study. Until and unless these reviews reveal greater credibility than was seen in our review, the results of these studies should be excluded from all deliberations of the regulatory agencies, including CDC.

On the basis of our brief review of the literature we conclude that if there is an effect of lead at low levels, that effect is small and elusive. We do not say that screening of children in high-risk areas should not be continued, that treatment should not be available for children with genuinely elevated lead levels, and that housing with definite problems with lead-based paint should not be abated. Those of us who have worked with truly lead poisoned children are aware of the risks. The issue is moderation in the absence of clear evidence of risk at the level of exposure now described as indicative of lead poisoning. The proposed plans will impose a heavy burden on state and city health departments, which have the chief responsibility for testing and treatment. There will be little help from federal funds. This is a zero sum game. Will these funds come from Head Start? Prenatal care? Drug treatment? Vaccinations? We think we should use our limited resources for programs that we know can have a beneficial effect on children.

And, lest we forget, a major lead-related risk for children comes in the form of bullets.

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A Health Promotion/Disease Prevention Model for Head Start Families *Kathy Sanders-Phillips*

Despite overall decreases in mortality for the population as a whole, ethnic minorities in the United States tend to have higher rates of morbidity and mortality than other groups in this country. The contribution of socio-economic factors such as poverty, unemployment, lack of health insurance, and limited access to medical care to the higher rates of morbidity and mortality among ethnic groups in the United States is quite clear. However, there is also data to suggest that increased morbidity and mortality rates among ethnic groups may be due, in part, to differences in health behaviors and practices. For example, it has been found that ethnic minorities may engage in more risk behaviors and fewer health promotion behaviors than other groups in this country. There is also evidence that, as a group, ethnic minorities may be less knowledgeable regarding risk behaviors and health promotion behaviors. Based on these findings, it has been recommended that ethnic minority groups in the United States should be targeted for health promotion intervention programs.

The present study, which was funded by the Henry J. Kaiser Family Foundation, was designed to assess levels of involvement in health promotion behaviors and identify barriers to health promotion among Black and Hispanic Head Start families who resided in South Central Los Angeles. Based on the data collected in this study, a health promotion intervention model for Head Start families in South Central Los Angeles has been developed and is being implemented.

The South Central Los Angeles Head Start community offered a unique opportunity to examine health promotion behaviors in a sample of low-income, ethnically diverse families. This section of Los Angeles is populated by predominantly low-income Black and Hispanic families. The area is distinguished by an extremely high density of people per square mile and a significantly higher percentage of poverty families as compared to other sections of Los Angeles. Individual members of the South Central Los Angeles community tend to be younger, less well educated, and more likely to be unemployed than community residents in other sections of the city. The South Central Los Angeles community has experienced a dramatic shift in population demographics in the last decade. The number of Spanish-speaking families has increased significantly and continues to increase. The majority of these Hispanic families constitute first-generation immigrants. Statistics for 1987 indicate that South Central Los Angeles is approximately 30% Hispanic and 53% Black. The Head Start families in South Central Los Angeles represent a cross section of families in the district. Like the population as a whole, the Head Start families are ethnically diverse, predominantly young, and low-income. There are 16 Head Start sites in South Central Los Angeles that serve approximately 1,300 children. Approximately 50% of the families served by Head Start are Black and 40% are Hispanic.

METHOD: Questionnaires designed to assess attitudes regarding health promotion and levels of involvement in health promotion behaviors were administered to a total of 301 women whose children were enrolled in 11 Head Start sites in South Central Los Angeles. Questions included in the survey were generated from a number of sources, including reviews of population and health data for South Central Los Angeles and interviews with community residents, health professionals, and advisory council members. This information was used to identify major health and social problems in South Central Los Angeles, common health and risk behaviors, and possible avenues for intervention.

The survey was guided by the PRECEDE model for health education planning. This model, which is based on the Health Belief model, permits evaluation of both the psychological and social factors that may significantly influence health behaviors in a given community. Sites for administration of the surveys were selected in an effort to provide a heterogeneous group of Black and Hispanic women. Trained interviewers administered the questionnaires to groups of 10-20 women in either English or Spanish. All respondents in this study were volunteers. In order to compensate for any reading problems women may have had, all questions and possible answers were read aloud to the participants. The respondents then circled their answers. The survey was designed to assess general attitudes regarding health promotion activity, demographic characteristics, and quality of life in the community. Ten specific indicators of health promotion behavior were also assessed, including global lifestyle behaviors and nutritional habits. The five indicators of global lifestyle behaviors were eating breakfast, sleeping eight hours per night, abstaining from alcohol and tobacco, and exercising at least three times per week. Indicators of nutritional habits included frequency of consumption of poultry, red meats, fruits, vegetables, and fish.

RESULTS: Response rates to the questionnaires ranged from 6% to 57% with a mean of 29%. Of the total 301 respondents, 102 were Black and 141 were Hispanic. The overwhelming majority of these women were under 30 years of age, unemployed, and had total household incomes of less than $10,000. Significantly more of the Black women had completed high school; the Hispanic women were much more likely to be married at the time of the survey. Given the small number of respondents other than Black or Hispanic females, the analyses of this data set were limited to the responses of the Black and Hispanic women only. As a group, Hispanic women tended to engage in more global healthy lifestyle behaviors than did the Black women. Hispanic women were more likely to be eating breakfast every day, sleeping 7-8 hours per night, and limiting alcohol and tobacco consumption. Black women were more likely to be exercising on a weekly basis. In contrast to the findings for global lifestyle behaviors, Black women were more likely to be engaging in selected healthy nutritional habits. They were more likely than Hispanic women to be eating poultry and vegetables often.

The differences in involvement in health promotion behaviors appeared to be related to a number of factors, particularly differences between the two ethnic groups in knowledge, attitudes, and beliefs regarding health promotion. Overall knowledge of risk factors regarding health was relatively low for both groups; however, Black women in the study were more likely to report that eating and drinking behavior affected high blood pressure and weight problems. Hispanic women were more likely to report that these behaviors were risk factors for accidents and infant health. Black women were also more likely to be smokers and to report that smoking affects health. Likewise, Black women were also more likely to believe that race, and particularly God, significantly influenced health. Although Hispanic women were less likely to believe that God significantly influences health, approximately 45% of them reported that God affects health outcome "a lot." Black women were also more likely to report that stress affects health. Interestingly, perceived susceptibility to disease was low in both groups and perceived efficacy in preventing disease was relatively high in both groups. However, Black women were much more fatalistic regarding cancer. They were unlikely to believe that cancer was preventable or treatable. Black women were also more likely to report that they had little or no influence over their health. Support from family and friends for health promotion was reported as high in both groups, but Black women were more likely to report that family members might not support changes in their health behaviors. Both ethnic groups reported that the mother in the family was the primary decision-maker regarding health behavior in the family system.

Hispanic women in this study were less likely to have health insurance coverage. In addition, both groups perceived other barriers to the use of health services in the community. These barriers included language problems, lack of respect from health professionals, lack of trust in the health care system, and feelings that health care workers did not care about them.

There were also vast differences in daily life experiences between the two groups. The Hispanic women in this sample lived in more crowded households, had a larger number of working family members, and tended to be recent immigrants from Mexico or El Salvador. Black women were more likely to rate themselves as unhappy, particularly as a result of stress in their lives. Hispanic women were more socially isolated, less likely to be involved in any organization outside of the home, and more likely to be living with members of their own ethnic group. The Black women in this sample tended to see the community as unsafe. In addition, they were much more likely to have had a personal experience with community violence. Almost 25% of the Black women reported that they had had a family member murdered. Subsequent analyses revealed that knowledge, attitudes, and beliefs about health promotion and daily life experiences were significantly related to involvement in health promotion behaviors. In general, being Hispanic, using flyers and leaflets as a source of health promotion information, having low perceived susceptibility, feeling as if health personnel care, and not having a family member murdered were related to higher levels of involvement in a more global healthy lifestyle. Having health insurance, low perceived susceptibility, and friends who were supportive were related to healthy nutritional habits.

DISCUSSION: The results of this study strongly suggested that attitudes regarding health promotion, knowledge of health promotion and risk behaviors, social/family support for health promotion, and daily life experiences significantly influence health promotion behaviors in this population of women. In addition, these results indicated that perceptions of and interactions with the health care system in this community were problematic. Therefore, it would be unlikely that the traditional health care system would serve as an appropriate site for intervention. Based on these findings, it was also concluded that since the mother is the primary decision-maker regarding health in these family systems, she should be the target of intervention. In addition, any program of intervention should focus on fostering the support of family members and friends in promoting behavior change. It also appeared that while the primary goal of an intervention program should be to increase knowledge of risk factors and healthy behavior, the program should be housed in a community-based organization that was familiar and perceived as "safe" by community residents. It was thought that this decision would facilitate trust and increase participation in an intervention program.

Based on these considerations, a health promotion intervention program was developed and implemented in eight Head Start sites in South Central Los Angeles. This five-year program, which is funded by the National Cancer Institute, is currently in its second year of funding. The program utilizes a community based approach to promoting healthier behaviors that focuses on individual and community empowerment. The intervention program targets individual behavior change by providing information, education, and peer support. Four categories of health promotion behavior are targeted, including nutritional habits, smoking behavior, breast cancer screening, and cervical cancer screening. Educational sessions are provided for families in eight of the Head Start sites during the school day. Head Start teachers and volunteer parents are trained to conduct the education sessions and to answer questions. All

Head Start parents and staff are encouraged to attend these sessions, and other family members, particularly older women in the family system, are also invited to attend.

Analyses of the data from this study have recently begun; however, it seems clear that this program offers one successful model of health promotion intervention for low-income Black and Hispanic women. The results of this program demonstrate that a health promotion program can be implemented in Head Start sites, that a program for ethnically diverse Head Start mothers can be developed, that Head Start mothers will attend such a program, and that Head Start teachers can be trained to deliver a health promotion program. In addition, although we have been successful in recruiting mothers to the intervention program, our experience in the last two years suggests that more thought must be given to identifying incentives for Black women to participate in a health promotion intervention program. Also, the success of a given program will depend, to a large extent, on the acceptance of the program by Head Start teachers and staff and the level of support and encouragement offered by the teachers and staff at particular sites. Lastly, and perhaps most importantly, we have continued to learn that the success of any program in an ethnic minority community and/or Head Start program will depend on the extent to which the program coordinators demonstrate a genuine respect for the program participants and encourage full participation of the community residents and Head Start staff in the development and implementation of the program.

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Discussion *John Pascoe*

I am an academic general pediatrician, and these are very important public health issues. I do have ongoing relationships with the state public health people in Madison. So I farmed out the papers after reading them. They are very timely, excellent papers. I would like to thank Sally Serpel-Donesch, a pediatric nurse practitioner in our clinic who also works with the Head Start Program in Dane County, Wisconsin, Theresa Hadley, who is with the Wisconsin Nutrition Project, as well as Dr. Dick Aronson, who is physician/consultant for maternal and child health for the state of Wisconsin.

My comments will focus on three main themes. One is families and health promotion, another is lead in child health, and the last is the lead bullet issue -- violence and injury control. We cannot talk about children and public health without touching on the importance of injury control. I believe that health behaviors and health risks, such as eating habits, obesity, smoking, high blood pressure, alcohol consumption, and physical activity are all highly correlated across families. Of course, genetics makes an important contribution to these health risks, but cultural and environmental influences are also very significant. In fact, in many cases, the family environment has been shown to have a stronger association with health-related risk factors than genetics. That point has been brought up very nicely today. Several studies provide evidence about dietary habits. Spouses have been found to have similar intakes of dietary fat and use of added salt, and, not surprisingly, parent and child calorie intakes are correlated. Children's food preferences resemble their father's, at least in one study. Dislike of particular foods is strongly correlated among siblings. Not surprisingly, studies have shown that family support for behavior change has a positive effect. High levels of partner supports related positively to smoking cessation, and obese children lost more weight when their parents participated. We probably also could say that this applies to caregivers, not only birth parents, but caregivers do not participate in weight control programs. Hypertensives stand a better chance of controlling their blood pressure when family members are involved in their blood pressure management classes.

There is still a lot to be learned about how families mediate these changes. Papers presented today by Weicha and Sanders-Phillips are good examples of how Head Start is participating in this very important area in public health. A few words about surveillance, or screening. As a clinician, I see surveillance as critical and screening as extremely important, but the definitive diagnosis and kind of treatment are also very important. It can be potentially frustrating when you have an exemplary screening program, wonderful surveillance, but inadequate resources. Violence in the community, transportation problems, and lack of understanding make it difficult for clinicians to manage the health care of these families. We also need to do better as physicians.

Herbert Needleman had an editorial, in the June 1991 American Journal of Public Health. It is almost as if he anticipated this conference. Let me just briefly touch on three major points that I pulled out of his editorial. The rapidly expanding literature on lead continues to show lead effects at lower and lower levels, and he lists several biological effects that are demonstrated in the lab at low levels of lead. The Agency for Toxic Substances and Disease Registry reviewed newer data in lead toxicity, and now estimates that three million children live in homes that have peeling, deteriorating leaded surfaces, and three to four million children have toxic lead levels. Again, the debate is where to draw the line on toxic levels.

Anticipating hesitation concerning the costs of a plan for universal surveillance, the CDC unleashed some econometricians who came up with the following: preventing a child's blood level from reaching 25 micrograms per deciliter, we avoid 1) $1,300 in medical costs, and 2) over $3,300 in special educations costs per child. The monetary benefit of decreased infant mortality was calculated as $300 per microgram per deciliter decrease in blood lead level -- that is, the mother's blood lead level. Using these data, they calculated that the total benefits from abatement of a single dwelling over its lifetime is about $4,200 per unit. The bottom line is a net benefit for each unit abated of over $2,000. Dr. Needleman clearly believes this analysis is valid, he described it as meticulous, and obviously highly supports it. In his summary of the epidemiologic literature in this area, he used terms such as "well done," and refers to a recent meta-analysis of 24 modern studies that showed a consistent association between low lead levels and children's cognition, behavior, and attention. Again, putting on my clinical hat, although I am not an expert in this area, I looked at the meta-analysis, and I have this discomfort about the lack of a clinical focus in these studies. Much of the focus is random error; could random error explain what we see? I know that if you have large enough samples very small changes can be statistically significant, not due to random error. My question is if this difference is big enough and strong enough to make me worry. I have not been able to pull that relationship out, despite my best efforts on several studies. In the meta-analysis, the 95% confidence interval crossed zero, no effect. At the School of Public Health, I was taught that if a 95% confidence interval crosses zero or relative risk one, there is no difference and it is a negative study.

The controversy will continue. I believe that before beginning a national program of surveillance, it certainly makes sense to have a multisite project, where a certain level is selected and some children are treated, some children are not treated, and then followed over time. I know there will be ethical issues that will have to be dealt with in that type of situation, but I think it needs to be done. That is the only way this controversy is going to be settled.

In terms of injury control, all three of my consultants picked up on the figure of 25% of the mothers who had a family member murdered. This is a marker for the violence that these families are living with. A recent newsletter from the American Academy of Pediatrics covers such topics as lead poisoning and nutrition. So pediatricians are clearly interested in these issues. Pediatricians are also very interested and worried about injury control. Injuries are among the major causes of mortality for young children. The actual causes of death are: motor vehicle occupant, aspiration-suffocation, fires, burns, and drowning. As a pediatrician, it is obvious to me that families must be included in the development of effective health promotion interventions. Further research should address the hows and the whys of this observation and the effectiveness of family-based health promotion interventions. It is natural to include Head Start in these interventions. The effects, or lack of effects, of lead on child behavior and development, and the wisdom of universal surveillance is obviously a hot topic in 1991, and this controversy should be resolved using data. Injuries kill young children, and we need to do more to identify the elements of effective intervention programs and implement them without delay. I imagine there are a number of people in the audience thinking, "He hasn't even mentioned substance abuse or HIV." There are many extremely important health promotion areas out there. I believe that given adequate resources, Head Start can make a significant contribution to this nation's efforts to attain the child health objectives described in Healthy People 2000. The development, implementation, and evaluation of health promotion services for children and their families, like those described in the excellent papers we have heard, can only be enhanced by cooperation and the coordination between Head Start and public health personnel.

Panel 109 THE EFFECTS OF PRESCHOOL ON SCHOOL READINESS

Chair/Discussant: **Jean Layzer**

The Appropriateness of Public School Pre-Kindergarten Programs for Disadvantaged 4-Year-Olds

Dale C. Farran, Beverly Silveri, Anne Culp

It is currently popular to argue that there is strong evidence for the value of early intervention for children who are disadvantaged by poverty and/or social disorganization. Consequently, the debate has shifted to the issue of where to house intervention programs for disadvantaged children (Committee for Economic Development, 1987; Kagan, 1989; Schorr, 1988; Schweinhart, Koshel, & Bridgeman, 1987), with many suggesting cautiously that the public schools should take responsibility for these programs (e.g., Futress, 1987; Mitchell & Modigliani, 1989). A nationwide survey (Marx & Seligman, 1988) found a three-fold increase in the number of states with state-funded prekindergarten programs between 1984 and 1987 (from 10 to 27 states). One danger to

this "overnight" grassroots implementation is that there are no current data that speak to their effectiveness. Much of the data on which the current Zeitgeist is based were derived from high-quality, university-based programs implemented primarily in the 1960s.

The history of educating minority students in public schools has led advocates of African-American children to be concerned with the idea of housing pre-kindergarten programs in the public schools (Moore, 1987). While there is the need for care of young children while parents work, there is limited evidence of the longitudinal effectiveness of early education programs in the public schools. The possibility of the downward extension of elementary education instead of developmentally appropriate education of young children is also of concern.

This paper will highlight a two-year research study of all public-school preschools in one region of a large southern state. In 1988, the Z. Smith Reynolds Foundation in North Carolina funded a project aimed at creating a support network among public school preschool teachers in one region of the state. In the first year, eight classrooms in four districts were involved; in the second year, the study involved 31 classrooms in seven school districts. These were all the public school pre-kindergarten programs in the region. The goal of the network was to collect information in collaboration with the teachers that would help make their classrooms developmentally appropriate for disadvantaged 4-year-olds. All information was shared with the teachers and administrators.

Data were collected the first year on the pre-post developmental skills of 109 children using the McCarthy Scales of Children's Abilities and the Peabody Picture Vocabulary Test. To test the significance of change in children's skills over time and the differential effects of classrooms and demographic factors, a multivariate analysis of covariance (MANCOVA) was performed.

Overall, there was a significant change across time in the test scores; the effect was carried by significant changes in scores on the PPVT and the Verbal and Perceptual subscales of the McCarthy. Children's McCarthy Quantitative and Memory performances did not show increases over time; in some classrooms there was a decrease in these scores. In addition to a general effect for time, there was a significant effect for classroom, indicating that not all the classrooms achieved the same results on the PPVT. Some classrooms were far more successful in affecting children's tested skills than others. No demographic variables were related to pre-post change.

Extensive classroom observation data were collected the second year using the Manual for Observation of Preschool Play (patterned after Parten's categories). The MOPP is an event-sampling system that "sweeps" all children in the classroom in three to five minutes; 10 sweeps are typically obtained during a single free-play or center time. All classrooms were visited once mid-year and again at the end of the year. Results indicated that children spent a high proportion of time in a large group, even though this was their "center" time, were in physical proximity to the teacher only about 25% of the time, and actually decreased the amount of associative play in which they were involved, while parallel play increased over the year.

These two years of data collection suggest that many of the classrooms were not developmentally appropriate as they were initially being implemented. Nor did the children gain on developmental tests comparable to initial gains produced by earlier intervention programs. The lack of gain in quantitative skills is particularly worrisome, paralleling the decrease in numeric skills Entwisle and Alexander (1990) found in their study of disadvantaged elementary school students. It is critical that classrooms are developmentally appropriate for the ages of the children for whom they are intended; preschool is an age the public schools have not dealt with before. Because these programs are intended for minority disadvantaged children, it is crucial that the special backgrounds of those children be taken into account in designing the curriculum. Teachers and administrators need specialized training in appropriate preschool practices before wholesale public school implementation occurs.

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Early School Adjustment: The Effects of Preschool Experience, Risk Status, Gender, and Age

Dominic Gullo

Early school adjustment can have long-term implications for children's developmental trajectories. According to Alexander and Entwistle (1988), early successful school achievement is a good predictor of a child's successful adaptation to school routine. A number of biological and experiential factors have been found to be associated with early school adjustment (Gullo, 1990a). These include the children's prior preschool experience, risk status, gender, and age. While there have been studies examining these factors, many have looked at them in isolation or as they relate to special populations or program models

(Schweinhart, Weikart, & Larner, 1986). The purpose of this study was to examine the effects of children's prior preschool experience, entry risk status, gender, and age on early school adjustment as measured by end of kindergarten reading/language and math readiness.

Early research examining the effects of preschool experience has been limited to studying at-risk children, children from economic poverty or with special needs (Goffin, 1989). In this manner, the research focuses on the effects of early intervention. Studies of this nature have found that for children who are academically at risk because of their economic situations, the effects of preschool resulted in initial academic gains; however, these gains often diminished without continued specialized programs (Weikart, Bond, & McNeil, 1978). For children with special needs, the research has shown that the earlier the intervention takes place, the more likely it is that the long-term gains on developmental and academic measures are sustained (Anastasiow, 1986).

The child's sex, as it relates to achievement in early schooling, has also been a focus of study. Studies of this nature have usually found that girls, in general, are more successful in their early schooling, as measured by academic achievement, than boys. Both biological and sociological explanations have been offered (Gelb, 1989, Gullo & Clements, 1984). Previous research has demonstrated that sex differences in prekindergarten and kindergarten manifest themselves in many forms. At the broadest level, cultural or societal expectations shape performance. Teachers and parents in the U.S. tend to expect girls to perform better in reading, whereas those in other cultures believe boys would be better in reading (Lehr, 1982). These variations in expectations affect teacher-child interactions. For instance, teachers make more academic contacts and spend more cognitive time with girls in reading, which is associated with sex differences in end-of-the-year reading achievement (Gullo, 1990b; Gullo & Clements, 1984; Leinhardt, Sewald, & Engel, 1979). In kindergarten and first grade, ratings of academic achievement favor girls. This is true even when there are no initial (kindergarten) or final (end of first grade) sex differences in actual achievement. In a study of three early childhood classrooms, Fagot (1973) similarly found that teachers instructed girls more, answered more girls' questions, and gave more favorable comments to girls.

An important policy and practice issue facing the early childhood profession is the effect that age has on the child's ability to benefit from a formal prekindergarten or kindergarten experience. There are really two questions being asked with regard to the age issue. The first dimension of the effect of age has to do with the child's relative age within his or her grade cohort with parameters set by the child's chronological or developmental age. The question being posed is, Do children who are older within grade benefit more from the school experience than children who are younger? The second question has to do with the child's age of entry. That is, at what age should children enter public school programs? Specifically, are there benefits for all children to enter before the age of 5?

Traditionally in the United States, children have been of legal age to enter the public schools at age 5, when they begin kindergarten. A desired characteristic of the kindergarten curriculum is to be flexible so that it will meet the developmental needs of individual children (Bredekamp, 1987). Recently, there has been major concern that not all five-year-olds are in fact "ready" for kindergarten (Uphoff & Gilmore, 1986). This is primarily due to the increased academic demands being placed on children by the kindergarten curriculum. It is further thought that if children who are considered not ready for school are allowed to enter before they can meet the demands of the curriculum, a long cycle of academic failure will commence. In response to this concern, there is a widespread trend for states to increase their kindergarten entrance ages (Freeman, 1990). In addition, there are many individuals who advocate that children should enter school based on their developmental age rather than their chronological age (Uphoff & Gilmore, 1986). A central assumption of this position is that children should enter school based on their score on a test of developmental abilities. Children who do not score at a predetermined level are presumably in need of more time to mature. These children are either encouraged or required to wait an additional year before entering school.

The research findings regarding age of entry are clouded at best. While some studies show that the youngest children in an academic kindergarten do not fare as well as the older children (DiPasquale, Moule, & Flewelling, 1980; Karweit, 1988), others have demonstrated that the negative effects of being the youngest in the class disappear in later years (Kinard & Reinherz, 1986; Shepard & Smith, 1986). The difficulty with generalizing these findings is that entry age has typically been studied in isolation from other variables, rather than how it functions in conjunction with other aspects of early education policy and practice.

The following research questions were explored in this investigation: 1) What are the effects of at-risk status, age of entry, prior preschool experience, and sex on academic readiness at the end of kindergarten? 2) Are there differences in children's academic readiness depending on whether they are the oldest or the youngest in their class? 3) Are there differences in children's academic readiness depending on the number of years of preschool they have experienced? 4) Are there differences in children's academic readiness depending on whether they are boys or girls? 5) Are there interactions among the above variables?

METHOD: Subjects for the study attended pre-first grade classes in a large urban school district. The school district has preschool classes for "regular" children at the 3- (K3), 4- (K4), and 5-year-old (K5) levels. Due to limited resources, the K3 and K4 children are chosen by lottery from all interested families, thus constituting a random selection of children. K5 is offered for all children. Children in the K3 cohort attended K3, K4, and K5 before first grade, the K4 cohort attended K4 and K5 before first grade, and the K5 cohort attended only K5 before first grade. There were 104 children in the K3 cohort (53 males, 51 females), 1,234 children in the K4 cohort (606 males, 628 females), and 3,201 in the K5 cohort (1,623 males, 1,578 females). Children were eliminated from the study if they attended more than one school before first grade, or were in special classes, were in a special school (i.e., bilingual, special

curriculum). A total of 4,539 children participated in the study. None of the children attended preschool programs other than the public school. All teachers held degrees in early childhood education.

Children's "at-risk" status was assessed upon entering the K3, K4, or K5 program using the Cooperative Preschool Inventory--Revised (CPI; Caldwell, 1975). The CPI is an assessment and screening instrument to be used individually with children ages 3 to 6. The test was developed to give a measure of achievement in areas regarded as necessary for success in school. Included are informational, visual-motor, quantitative, language, and self-concept items. Children who fail to reach a criterion score are considered "at-risk." In May of their K5 year, children's achievement was assessed using the Metropolitan Readiness Test, Level II, Form P (MRT; Nurss & McGauvran, 1974). The MRT is a norm-referenced test designed to assess several important skills required for first grade reading and math. The multiple skills battery includes: a) auditory; b) visual; c) language; d) quantitative; and e) composite (sum of a, b, and c) readiness scores. For this study, only the MRT composite and quantitative scores were used in the analyses as math and reading/language readiness have been shown to be the two best indicators of children's adjustment to the school academic routine (Alexander & Entwistle, 1988).

For the analyses, children's age was viewed as a categorical variable for dividing children into two age groups: a) those who started kindergarten at 5 years 6 months or below; b) those who started kindergarten when they were older than 5 years 6 months. This age division is consistent with that recommended by those who advocate that children should be kept out of kindergarten if they are considered too young (e.g., Uphoff & Gilmore, 1986).

RESULTS: A 3 (cohort: K3, K4, K5) x 2 (risk) x 2 (sex) x 2 (age) analysis of variance was performed on the MRT composite and quantitative subtest scores. Examination of the means of the significant main effects indicate that for both the composite and quantitative analyses, "not at-risk" children scored higher than "at-risk" children, girls scored higher than boys, and older children scored higher than younger children. Post-hoc analyses for the cohort effect indicate that the K3 and K4 cohorts scored higher than the K5 cohort. There was no difference between the K3 and K4 cohort scores.

Post-hoc analyses for the significant two-way interactions for the composite scores indicate that, for the cohort by risk interaction within the K3 cohort, there was no difference between the scores of the "at-risk" and "not at-risk" children by the end of kindergarten. However, for the K4 and K5 cohorts, there remained differences between the "at-risk" and "not at-risk" groups at the end of kindergarten.

For the significant risk by sex interaction, it was found that for the "at-risk" group there was no difference between boys' and girls' composite scores. For the "not at-risk" group, girls scored higher than boys. For the significant cohort by age interaction, it was found that for the K3 cohort there was no difference between the scores of the oldest and youngest children by the end of the kindergarten year. However, for the K4 and K5 cohorts, the older children scored higher than the youngest children. For the MRT quantitative analyses, only the cohort by age interaction was significant. Post-hoc analysis revealed that for the K3 cohort there was no difference between the scores of the oldest and youngest children by the end of the kindergarten year. However, for the K4 and K5 cohorts, the older children scored higher than the youngest children. No other significant interactions were found.

DISCUSSION: The findings of this study indicate that prior preschool experience, entry-risk status, sex, and age do affect early school adjustment. The interesting aspects of the findings, however, surround the interaction findings. In this study, two years of preschool served as intervention for children who were identified as "at risk" or were the youngest in their cohort, diminishing the differences between the two groups within that cohort. This has significant implications for the Head Start population. It is children from homes of economic poverty who are likely to be the youngest in the class because their families are less likely to hold them out for a year, a common practice among middle-class families (Shepard, 1990), and are more likely to be identified as academically "at risk." Because this represents one of the first studies to look at the effects of "regular" preschool to determine its affects on at-risk conditions, one can only draw upon the intervention literature for possible explanations for these findings. Even though the programs participated in by children in the present study were not designed as intervention, it may be that "quality" preschool, implemented by teachers specifically educated in early childhood strategies, acts as "intervention" for those children who are in need of it. In the present study, the preschool and kindergarten programs were implemented in the public school, and the children who participated in the study attended both preschool and kindergarten in the same school. The finding under discussion here may have been brought about by this fact. One can only surmise that it at least impacts on the finding.

This being true, certain policy issues may be derived. If preschool experiences are to have high, positive, and long-lasting effects, the expectations in preschool must be contiguous with the expectations in kindergarten for maximum benefit. There is certainly evidence for this with regard to Head Start populations (Zigler & Valentine, 1979) and other populations of children who underwent specific intervention (Weikart, Bond, & McNeil, 1978). Therefore, more continuity between prekindergarten and kindergarten should be promoted. Likewise, more continuity between Head Start and public school kindergarten should also be a sought-after goal. This can be accomplished in at least two ways. Expanded prekindergarten programs in the public school is one way. As this practice is increased, however, we must make every effort to maintain sound and developmentally appropriate early childhood practices. Secondly, there must be greater cooperation between the private preschool sector and the public school

kindergarten sector. If public and private institutions continue to act as independent agents, the opportunity to maximize the benefits for children may become lost.

In this study, sex appeared to be a "risk" factor. This was evident in the sex-by-risk interaction, where no sex difference was found between boys and girls in the "at-risk" group. Earlier studies have also found that males are academically "at risk" in the early grades (e.g., Gullo & Clements, 1984). Children who are eligible to be served by Head Start are often served by programs other than Head Start due to various circumstances. We need to become knowledgeable about the effects of other types of preschool programs, along with implementing a more rigorous and systematic study of Head Start's effects so that we may become better at designing educational experiences for young children. Research should be designed to examine both resiliency and protective factors in children's lives in order to determine how these factors affect the long-range effectiveness of Head Start. As such, the present and the other research to follow will only serve to confirm the complexity of the early education process. It should highlight the need to avoid making specific decisions about early childhood education practices and policies in isolation from considering the broader developmental context of each child.

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Mediated Effects of Preschool Intervention *Arthur J. Reynolds*

Although it is well known that the effects of preschool intervention on cognitive achievement fade over time (Haskins, 1989; White, 1985-1986), little is known about the factors that mediate or transmit preschool's effects on later outcomes. Three kinds of mediators of preschool have been investigated. These include cognitive school readiness (Berrueta-Clement et al., 1984), parental involvement (Reynolds, 1989, 1991a), and school context factors, especially grade retention, assignment to special education, and teacher ratings of socioemotional development (Berrueta-Clement et al., 1984; Lazar et al., 1982). These factors appear to reinforce children's early patterns of school adjustment and lend support to a social context model of the transmission of preschool effects (Woodhead, 1988).

As much as these studies and others suggest processes by which preschool influences educational outcomes such as cognitive achievement, they are limited in three respects: they were not designed to explain differences in early school outcomes, particularly fading effects on achievement; they did not include a comprehensive set of social context mediators, especially family factors (Bronfenbrenner, 1975); and, because most findings come from private preschool programs, the generalizability of results to government-funded programs is unclear (Haskins, 1989; Woodhead, 1988).

The present study tested six factors as mediators of preschool's influence on year three achievement (third grade for most children), a time when observed achievement effects have largely faded (Haskins, 1989; White, 1985-1986). These factors are: entering cognitive school readiness, socioemotional adjustment rated by teachers, parent involvement at home and in school, grade retention, special education placement, and school mobility (changing schools between kindergarten and year three), which has been found to negatively influence cognitive achievement (Reynolds, 1989, 1991a). Gender was included in the model as a control variable.

The objective was to investigate the extent to which these factors explain the process by which preschool influences academic achievement in reading and mathematics as well as grade retention.

The basic assumption of the model is that preschool intervention has indirect (rather than direct) effects on later achievement through cognitive readiness and intervening school and family factors. An indirect effect is the degree to which an intervening variable accounts for the relationship between prior and subsequent variable (Wolfle, 1980). The extent to which the effects of preschool are mediated reflects its degree of dependence on intervening factors. Such a time-ordered process specifies how or why effects occur (Baron & Kenny, 1986). An indirect or mediated effect is computed by multiplying the coefficient between the predetermined and intervening variable with the coefficient between the intervening and outcome variable.

There were two major hypotheses. First, the effects of preschool are mediated by (and directly associated with) cognitive readiness, teacher ratings of socioemotional maturity, parental involvement, retention, and special education placement. Second, mediators of preschool (including cognitive readiness, teacher ratings, parent involvement, grade retention, assignment to special education, and school mobility) are directly associated with year three achievement.

METHOD: This study traced the impact of the government-funded Child-Parent Center (CPC) preschool program from the beginning of kindergarten to the third grade year (1986-1989). The 391 ethnic minority (95% Black, 5% Hispanic) children in this study are part of the Longitudinal Study of Children at Risk (LSCAR; Reynolds, Hagemann, Bezruczko, & Mavrogenes, 1991b), an investigation tracing the school adjustment of a panel of 1,300 low-income, minority children graduating from Chicago's government-funded kindergarten programs in 1986. In this study, 266 children attended CPC preschool, a comprehensive and intensive program that enrolled 3-and 4-year olds in six schools that were the original sites of the program. Funded by Chapters 1 and 2 of the Educational Consolidation and Improvement Act, a federally supported compensatory education program, the CPC program began in Chicago in 1967 and has goals similar to Head Start, including improving the school readiness of children from economically disadvantaged environments.

The CPCs offer a language skills program with health and nutritional services, and extra educational services. Parent involvement is a requirement. Each CPC has a head teacher, a parent resource teacher, teacher aides, and a variety of support services, including in-service training for teachers and aides, and supplies and equipment. As implied by its title, a distinctive feature of the program was parent involvement -- parents were required to participate in school/classroom activities one-half day per week. As a compensatory educational program, entry into the CPCs is limited to children in school districts with a high proportion of low-income families. Parents are required to apply at the school in their neighborhood, and acceptance into the program is usually limited to the families in most educational and economic need.

The remaining 125 children served as a matched comparison group, since they came from the same low-income neighborhoods as the CPC children and enrolled as 5-year-olds in the same all-day kindergarten programs without any preschool experience. Enrollment in the program was open to any child in the school district and required parents to apply at the school. The comparison group did not significantly differ from the CPC group on age at school entry ($\bar{x}$ = 65 and $\bar{x}$ = 64 months, respectively) and family background (i.e., 64% and 63% of the responding parents, respectively, indicated they graduated from high school). Moreover, a structural modeling analysis of unmeasured variables found no evidence that self-selection to preschool and no preschool groups affected the relationship between preschool and cognitive readiness or other outcomes.

The model was tested by LISREL 7 (Linear Structural Relations; Joreskog & Sorbom, 1988a) maximum likelihood estimation. Whenever possible, multiple indicators of each factor were included; otherwise the measurement error of single-indicator factors was estimated from the date (Hayduk, 1987). Correlations among the factors were estimated by Preliminary LISREL (PRELIS; Joreskog & Sorbom, 1988b). Descriptive statistics of the manifest indicators of the model were calculated by group. Cognitive readiness (or developmental preparedness) at kindergarten entry, measured by the Iowa Test of Basic Skills, was higher for CPC children ($p<.05$). Teacher rating, measured in year one, and parent involvement in years one (teacher rating of parent participation in school) and two (parent ratings of interactions with child) were also higher for CPC families ($p<.05$). Grade retention, special education placement, and school mobility were dichotomous cumulative indicators measured in year one, year two, and the beginning of year three, respectively. CPC children were retained significantly less than no preschool children ($p<.05$). Year three reading and mathematics achievement, measured by the Iowa Tests of Basic Skills, was higher for CPC children ($p<.05$). Because preschool was expected to be a major source of group differences, the analysis combined both groups. Confirmatory factor analysis verified the adequacy of the indicators in defining their latent factors.

RESULTS: The results of the final mediated preschool model are displayed in figure 1. The arrows connecting the latent factors represent significant effects at the .05 level, and standardized effects are provided. This model fit well both statistically (X^2 = 70, N = 391) = 167.93, chi-square ratio= 2,400, adjusted goodness of fit index = .912; root mean square residual = .045) and compared favorably to alternative models. As expected, there was substantial mediation of preschool, which indicated that preschool is dependent on other factors in exerting effects on later achievement. Preschool had no direct effect on year three achievement over and above other factors.

The effect of preschool on year three achievement was mediated by four pathways including: cognitive readiness (b = .130 or .37 x .35); cognitive readiness and socioemotional maturity (b = .043);socioemotional maturity (b = .039); and parent involvement (especially school involvement) and school mobility (b = .021). Pathways involving cognitive readiness, socioemotional maturity, and parent involvement also mediated preschool effects on grade retention by year three. Although preschool contributed significantly to the schooling process, the effects of intervening factors (e.g., retention and school mobility) on year three achievement were generally greater than preschool, which suggests they contribute more to early school than does preschool per se.

Figure 1. FINAL MEDIATED MODEL OF PRESCHOOL. EFFECTS ARE SIGNIFICANT AT THE .05 LEVEL

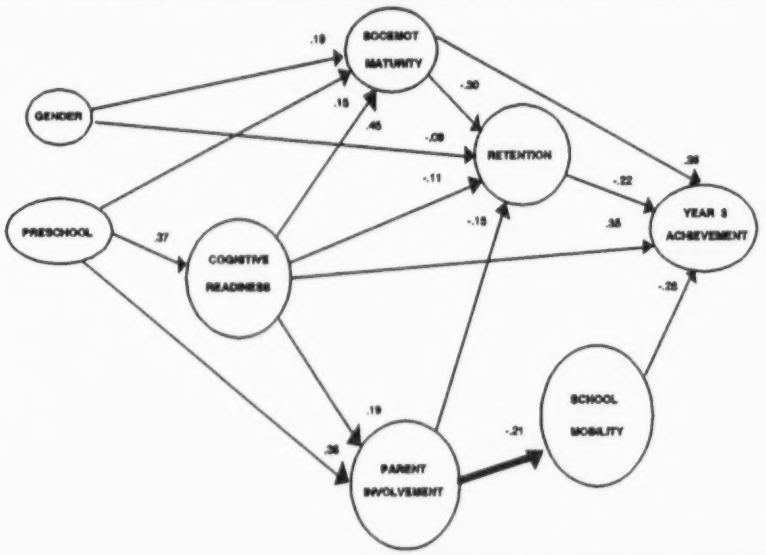

Figure 1. The path from gender to parent involvement (b = .13) and the across-equation correlations between socioemotional maturity and parent involvement (r = .28) and school mobility and retention (r = .14) are not shown.

The summary of direct (unmediated), indirect (mediated), and total effects (unmediated plus mediated) indicate that preschool had substantial indirect effects on year three achievement (b = .28) and grade retention (b = -.20), although it should be noted that its immediate direct effect on cognitive readiness was its greatest effect (b = .37; see figure 1). However, the effects of intervening variables were generally greater than preschool, which indicates the relative power of the intervening factors in affecting year three achievement. For example, cognitive readiness had a substantial direct (b = .35) and indirect effect (b = .19) on year three achievement that summed to a total effect of .54. This indicates the pervasive influence of cognitive readiness on primary-grade achievement that is only partially attributable to preschool. Teacher ratings, school mobility, and retention also had substantial effects on year three achievement in the expected direction, although their influence was primarily unmediated. As expected, the effects of mobility and grade retention were negative and take into account each other's influence as well as prior factors.

DISCUSSION: Despite its correlational design and the necessarily tentative inferences that can be drawn, this study extends on previous analyses by providing empirical support for substantial mediated effects of government-funded preschool through pathways involving cognitive readiness, teacher ratings at year one, and parent involvement/school mobility. The effects of preschool are more likely to be passed on if children begin school with higher levels of cognitive readiness and parents provide a stable and supportive environment for learning. These factors appear to be links in early schooling that help transmit the effects of preschool as well as maintain stability in academic performance.

The results support the following implications. First, the effects of preschool on early school achievement and adjustment (i.e., retention) are dependent on intervening factors, notably cognitive readiness, teacher perceptions of maturity, and parent involvement and school mobility. Although preschool's contribution to early school adjustment should not be trivialized, the results of the model indicate the greater role of intervening factors as the schooling process unfolds, especially the positive influence of teacher ratings and negative effects of grade retention and school mobility. Indeed, it is not realistic to expect long-term effects of preschool if a child subsequently changes schools frequently and is retained in-grade. These findings suggest that research focusing only on group differences attributable to preschool misses the larger story involving factors that, by themselves, have a greater impact on

school adjustment. More attention to these factors is warranted in intervention research. Second, because the effects of preschool are dependent on intervening factors, the transmission of effects is likely to vary from one social context to another, depending on the inter-relationships between preschool and intervening factors (Woodhead, 1988). Consequently, the importance of cross-validating this model and others across contexts and samples will be critical in verifying the generalizability of results. Another issue for future research is the extent to which the present structural model reflects the transmission of preschool effects for other outcomes. Reynolds (1991c) found that a similar model mediated the effects of preschool on year four perceived competence. Nevertheless, additional studies are needed. Third, alternatively, because the early schooling process is a network of inter-related effects, post-preschool intervention efforts directed at specific factors are likely to be met with some success in altering children's pattern of adjustment. For example, school efforts to provide family-school parent involvement programs, reduce the practice of grade retention, and reduce school mobility and its negative effects may be particularly beneficial in improving children's continuity of development. Moreover, follow-up intervention programs designed to improve children's transition to the primary grades may be beneficial, to the extent that these interventions positively influence intervening factors.

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Inner-City Children: Type of Preschool Experience Does Matter *Rebecca A. Marcon*

In response to research findings that children from low-income families benefit from quality early education programs (e.g., Lazar et al., 1982; Schweinhart & Weikart, 1978), public school districts are expanding preschool programs for these children. However, not all curriculum models currently in use would be considered developmentally appropriate for young children, and some experts (e.g., Elkind, 1986; Zigler, 1986) fear inappropriate methods may be detrimental to future learning motivation. Educational policy makers face important issues as various preschool curriculum models are selected for broad-scale implementation. It can no longer be assumed that any preschool curriculum will achieve positive results, and research efforts to find more effective matches between curriculum and child characteristics are needed (Powell, 1987).

The present research was part of an on-going evaluation designed to provide comparative outcome data on different preschool programs for policy makers in a large urban school district that had widely implemented public pre-kindergarten and incorporated Head Start classrooms within the public schools. Differential program effects on a range of developmental domains and early skills acquisition were assessed for first graders who had been studied since first entering the school system as either 4- or 5-year-olds. A push for earlier academic preparation in this school system made the current study of special interest because the developmental appropriateness of its programs varied noticeably.

METHOD: A total of 264 children (mean age = 83.2 months) enrolled in 101 different first grade classrooms in 60 District of Columbia public schools were studied. Prior to entering first grade, 64% of the sample had both pre-kindergarten and kindergarten experiences, and 36% had only attended kindergarten. The sample was 94% African-American and 52% female. Most children (71%) qualified for subsidized lunch based upon low family income; 61% lived in single-parent homes. At the end of first grade, teachers completed a classroom edition of the Vineland Adaptive Behavior Scales (developmental) and the District's final Progress Report (basic skills) for each child in the study. All data were analyzed using a covariate to control for possible economic differences. Where available, children's year-end Vineland and Progress Report data from PreK/Head Start and kindergarten were also examined.

Three different Pre-K/Head Start models, two different kindergarten models, and two different first grade models were identified using cluster analysis (Ward's method) on a 14-item survey measuring teacher beliefs and practices on five theoretical dimensions (author, 1988). At the pre-kindergarten level, Model CI teachers represented an active, child-initiated approach to early learning; Model AD teachers ran more didactic, academically directed programs with direct teacher instruction; and Model M teachers fell between the other two opposing models, endorsing more middle-of-the-road beliefs and practices. At the kindergarten level, Model ModAcK teachers endorsed moderately academic kindergartens but believed that academic preparation was a more important goal of kindergarten than socioemotional development; and Model ModAcK/SE teachers were also moderately academic in their approach, but valued socioemotional development as a goal of kindergarten. At the first grade level, Model MF teachers represented middle-of-the-road facilitators and held similar attitudes to Model M Pre-K teachers; Model TIC teachers endorsed a slightly more teacher-initiated content approach to first grade.

RESULTS

Pre-K/Head Start Model: Paired t-tests were used to compare matched pairs of children with and without Pre-K/Head Start experience. Although all first grade Vineland and Progress Report scores of children with Pre-K/Head Start experience were higher, these differences were not statistically significant. However, the type of PreK/Head Start program attended did have an impact on first grade outcomes. MANCOVA and Duncan's results for Vineland data indicated a trend for higher social development among children who had attended Model CI preschools (F (2, 110) = 2.55, p = .08). Chi-square analysis of subdomain scores indicated significantly lower ($p < .01$) development of personal, domestic, and community skills associated with self-help among first graders who had attended Model AD preschools. First graders who had attended Model M preschools had lower grades in all areas measured. MANCOVA and Duncan's results indicated these differences were statistically significant ($p < .05$) for spelling, art, and health/PE. Other than significantly higher grades in health/PE ($p < .05$) earned by children from Model CI preschools, no significant differences were found in final grades of children who had attended Model CI or Model AD preschools. However, an examination of subject areas indicated these two models may be fostering different skills. Former Model CI children were higher in handwriting, social studies, science, art, music, and citizenship while former Model AD children were higher in math, reading, language, and spelling.

Kindergarten Model: All first grade Vineland scores of children from ModAcK/SE kindergartens were higher. MANCOVA results for children with Pre-K/Head Start experience indicated these differences were statistically significant for Adaptive Behavior (F (1, 108) = 7.80, $p < .01$), Communication (F (1, 109) = 5.25, $p < .05$), Daily Living (F (1, 108) = 3.52, p = .06), and Social (F (1, 109) = 9.83), $p < .01$). For children who only attended kindergarten, these differences were statistically significant for Social Development (F (1, 65) = 3.72, $p < .05$). First grade Progress Report scores of children with Pre-K/Head Start experience who had attended ModAcK/SE kindergartens were higher than ModAcK peers in all areas except citizenship. However, because the sample of first graders with ModAcK/SE experience was small, statistical analyses were insignificant, although a trend for science grades was found (F (1, 159) = 2.34, p = .12). Interestingly, the results were nearly reversed for first graders who had only attended kindergarten. Scores of children who had attended ModAcK kindergartens were higher in all areas, except art, music, and health/PE. There was a statistical trend towards significance for reading (F (1, 92) = 3.15, p = .08) and science (F (1, 93) = 3.15, p = .08). The only area where ModAcK/SE children with no prior experience did better was in health/PE (F (1, 94) = 1.76, p = .09).

First Grade Model: MANCOVA results for Vineland data indicated children from Model TIC first grades with Pre-K/Head Start experience showed significantly higher Adaptive Behavior (F (1, 111) = 5.25, $p < .05$), Social Development (F 1, 112) =11.08) $p < .001$), and a trend towards higher communication scores (F (1, 112) = 3.53, p = .06) than Model MF peers. Adaptive Behavior ($p < .05$) and Social Development ($p < .001$) of first graders who had only attended kindergarten was significantly higher among Model TIC children. A trend towards higher Daily Living Skills (p = .07) was also found. Model TIC children who had attended Pre-K/Head Start earned higher grades than Model MF first graders in all subject areas, except music and citizenship. However, MANCOVA results indicated these differences were significant only for grades in language (F (1, 157) = 6.14, $p < .01$), with a trend noted for reading grades (F (1, 155) = 2.49, p = .11). Grades of Model TIC children who only attended kindergarten were higher in all subject areas, but only health/PE showed a trend towards statistical significance (F (1, 89) = 2.83, p = .09).

DISCUSSION: Different preprimary experiences were found to have an impact on development and performance of first graders in an inner-city school system. Children who had attended a compromise Model M preschool ended up with lower grades by the end of first grade. The other two preschool programs (Model CI and AD) tended to produce fairly equal achievement levels in first grade, but fostered different types of skills development. Developmentally Model AD children decreased in self-help skills over time and lost ground in social development as they progressed through the school system. These differences are noteworthy and could have important long-term implications for school achievement as well as later adjustment.

The type of kindergarten attended also had an affect on performance in first grade. Regardless of whether children had attended Pre-K/Head Start, kindergarten programs that valued socioemotional development (ModAcK/SE) fostered greater development in first graders than did programs emphasizing academic preparation. This was especially noticeable for social development. Socioemotional kindergartens also fostered higher academic performance in first graders who had attended Pre-K or

Head Start. However, for children who entered first grade with only a kindergarten experience, kindergartens that emphasized academic preparation were more likely to enhance first grade academic achievements.

Finally, the type of first grade attended also affected first grade performance. The two models of first grade education in this study had parallels in two of the preschool models discussed. Just as preschool Model M was found to be ineffective, so, too, is its first grade parallel, Model MF. The true effectiveness of a teacher-directed Model TIC was not adequately tested because no first grade programs using strategies like those reflected in Model CI preschools were available for study. In the present data, a content-centered approach at the first grade level seems to be working. However, potential long-term difficulties with such an approach still need to be considered before establishing instructional policy.

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Panel 110 CHILDREN IN FOSTER CARE

Chair: **Michael Ambrose**; *Discussant:* **John W. Hagen**

Demographic, Family, And Infant Characteristics Associated with Early Foster Care Placement

Prasanna Nair, Cynthia Kight, Maureen Black, Patricia Roby, Renee Wachtel, Susan Hines, Betina Yousef, John Johnson, Richard Hebel

Foster care placement of infants and children has been associated with numerous factors, including maternal alcoholism, substance abuse, and HIV infection. A substantial portion of these infants are born addicted, and once they leave the nursery, many will be raised in dysfunctional families without adequate nurturance. Major concerns in the mothers' ability to care for their infants include inability to remain drug free and abstain from high-risk behavior that often results in repeated incarcerations. When women are unable to care for their children adequately, foster care placement often occurs. The purpose of this study was to assess the demographic, family, psychosocial, and infant characteristics associated with early foster care placement in a group of women at risk for AIDS, over 90% of whom were substance abusers.

METHODS: In an ongoing study of perinatal transmission of HIV, a subgroup of 60 women with a history of drug abuse were enrolled into a National Center for Child Abuse and Neglect (NCCAN) funded study to evaluate the effectiveness of an in-home intervention program in reducing child abuse and neglect. Women were recruited prenatally into the study, and were administered standardized questionnaires that included such variables as maternal personality characteristics: risk for abuse, maternal perception of family supports and family functioning, and HIV risk factors. Mothers' perception of parenting stress at three months postpartum and infant temperament at six months were assessed. After birth, infants received comprehensive pediatric care at a special clinic. Their development was assessed by standardized tests at scheduled intervals. Data were collected on psychosocial and medical problems experienced by mothers and on substitute care of the infants. Stepwise logistic regression was used to identify factors that would discriminate between those infants who remained with their mothers during the first year and those who were placed in foster care. Observed differences between the two groups was significant ($p<.05$).

RESULTS: Preliminary results from demographic and psychosocial data are presented on 57 infants who have been followed prospectively from birth to at least 15 months. During the first 12 months, 16 (28%) of the infants were placed in foster care. Reasons for placement were incarcerations (62.5%) and neglect (25%), both related to continued substance abuse. In terms of maternal characteristics, there was no significant difference between the two groups in race, type of family, maternal education, marital status, maternal age, HIV status, or history of drug use. The majority were Black, over half had not completed high school, and all were aware of their HIV status. Smoking, HIV, drug use, and alcohol use were strong life style components of this group. The women were in the middle of their childbearing years, the majority were single, most lived in extended families, and 40.3% had other children who had been placed in foster care. Child protective services were involved with 51% of the families by 12 months of age.

Prenatal questionnaires completed by the mothers indicated that both groups appear to be distressed, unhappy with themselves, and clearly feeling that they were having problems. More mothers in the foster care group perceived themselves as being depressed and having significant problems with their families on Milner's Child Abuse Potential Inventory. Family functioning was

evaluated using Olsen's Family Adaptability and Cohesiveness Scale (FACES). Based on this circumplex model of family functioning, 23% of the families were classified as extreme; only 38% were balanced. Women from balanced families were likely to view other family members as supportive; however, the majority of the women in the foster care group felt disengaged from their families, and one-third of them perceived their families as rigid or chaotic. At three months postpartum, maternal depression and maternal sense of competence scores on the Parenting Stress Index were higher in the foster care group of mothers. Stepwise logistic regression analysis indicated that both heroin use during the pregnancy and a history of incarceration were predictive of foster placement within the first year. Although heroin use and incarceration were highly correlated, each contributed to the prediction of foster placement.

Infants who were placed in foster care had lower mean birth weight and a higher incidence of neonatal abstinence syndrome than those who remained with their mothers. An interaction between infant difficulty and heroin use illustrates that when temperamentally difficult children were raised by families using heroin, the risk of foster placement was high (Odds Ratio = 7.00). In contrast, when temperamentally easy babies were raised by families who were not using heroin, the risk of foster placement was low (Odds Ratio = 0.25). There was no significant difference in sex, gestational age, number of neonatal problems, or length of hospital stay. Of 24 infants born to HIV-positive women, five (20.8%) are known at this time to be infected with HIV.

CONCLUSION: The findings in this study suggest that in this group of infants born to substance-abusing women, foster placement was related to parent, family, and child variables. From a parent perspective, prenatal predictors of early foster care placement were continued drug use during pregnancy and past history of incarceration -- both indicators of the severity of drug addiction. Maternal HIV status was not a factor in early foster care placement. Infant and family variables indicate that the psychosocial environment of these infants regardless, of their mothers HIV status, is a major concern. Family functioning can influence individual behavior through the cohesion and adaptability that are provided to individual members. In this group, families that functioned in extreme positions of either cohesion or adaptability were more likely to have a child placed in foster care than were more balanced families.

Newborn characteristics associated with foster care placement included low birth-weight and neonatal-abstinence syndrome. The interaction between infant difficulty and heroin use illustrated that when temperamentally easy babies were raised by families using heroin, the risk of foster placement was low. Individual children, therefore, may also be at increased risk for foster placement based on their temperament.

It appears that women who are depressed, alienated from their families, and have a poor sense of competence as parents, seem less able to handle the stress of parenting. If they are further challenged with a low birth-weight infant, an infant with withdrawal, symptoms or a temperamentally difficult infant, they may be more likely to continue to engage in high-risk behavior that may result in foster placement of their infants.

Children Placed With Relatives: How Healthy Are They? *Howard Dubowitz, Susan Feigelman, S. Zuravin, V. Tepper, R. Lichenstein, N. Davidson*

The number of children placed into foster care continues to increase. Current estimates suggest that there are 400,000 foster children, and it is projected that by 1995 this number will exceed half a million. The reasons for this increase are partially due to the prevalence of social disorganization in inner-city families, including an increase in the number of substantiated reports of child maltreatment, AIDS in the inner cities, drug use in pregnancy, and homelessness.

There are three types of foster care: family foster care (regular foster care), group care, and placement with relatives or kinship care. Of these three groups, kinship care has received the least attention by investigators in the field. When a child is removed from the family of origin by a social service agency, one of the first efforts made is locating a member of the extended family who is able and willing to take the child into his/her home. The practice is very common, with almost half of all placements in many cities going to relatives.

There are several theoretical reasons to assume that placement with relatives would be advantageous to the welfare of the child. First, the relative may have a bond with a blood relation and therefore be more invested in the child. Second, placement with a relative the child is already familiar with might be less traumatic. Third, there is an increasing shortage of good foster homes. Fourth, it is consonant with the philosophy of "family preservation." As a result, in many jurisdictions, the support services that relative caretakers receive is less than those for a regular foster family, the screening procedures are less rigorous, and monitoring of the family is decreased. However, there is little evidence that the assumptions listed above are true. One reason for concern is that the children are placed into the family that produced the incapable parent. Therefore, more information about the relative families and the outcome of children in kinship care is needed.

Our study resulted from a class-action lawsuit against our city's social service agency due to perceived deficiencies in the system. The project took place from September 1989 through April 1990. We received some information on all 524 children who at the end of April 1989 were living in the care of their relatives, after placement by the Baltimore City Department of Social Services. Of this population, 407 children had a complete evaluation in a special clinic at the University of Maryland, under the direction of Dr. Howard Dubowitz. One hundred thirty-seven were under the age of 6; the remainder of this discussion will focus on these children.

METHOD: Data were initially gathered by obtaining a copy of the medical records from each child's identified source of medical care. Questionnaires designed for this study were mailed to the biological parent, the foster parent, the caseworker, and the physician for each child. Response rates varied among these groups. Our clinic was staffed by a nurse, physicians, psychologists, a secretary, and research assistants. Each child was brought in to the clinic, usually by the relative caretaker, and received a physical exam and an age-appropriate psychological assessment. A list of significant problems identified for each child was compiled using information from all our data sources. In addition, each problem identified was rated by the extent to which the problem was being managed or treated. Most of the children were African-American and were usually placed because of parental neglect. The caretakers were generally grandmothers. Many of the caretakers believed they would be caring for the child for an extended time period, whereas others were unsure of the long-term plan for the child. Sixty-nine children had been in a day care program, while caseworkers believed another 18 needed a day care program.

RESULTS: We used the health supervision schedule established in the EPSDT (Early Periodic Screening, Diagnosis, and Treatment) guidelines for the adequacy of health care visits. We considered evidence of the child receiving at least two-thirds of the recommended number of visits in the past three years as adequate. Due to the inability to obtain records, we were unsure of the status in 69% of the children. At least 29% had an adequate number of health supervision visits and only 2% were clearly deficient.

In terms of immunizations, receipt of at least two-thirds of the recommended immunizations required in the past three years was considered adequate. However, we deleted the Hib (Haemophilus influenzae b) vaccine requirement because the schedule for this vaccine had recently changed. Again, due to our inability to obtain complete medical records, the immunization status of 40% of the children was unclear. However, at least 58% had received two-thirds of their vaccines and only 2% were clearly deficient.

Visual acuity, using the E or Snellen eye charts, was tested in those aged 4 or 5. Visual acuity equal to or worse than 20/50, or a difference of more than one line on the eye chart, was considered a failure. One out of every four children failed the vision test, although some had previously been evaluated for a vision problem and received eye care. Of those young children who failed, most required further vision testing. Auditory acuity was measured in 4- and 5-year-old children, after exclusion of those with an active ear infection. A child failed if he/she could not hear at 30 decibels the speech frequencies in a quiet, but not sound-proof room. Six percent failed the exam, 74% passed, and the remaining 20% were untestable. None of the caretakers was aware that the child in his/her care might have a hearing problem.

Since preschool children are expected to visit a dentist, we inquired whether the 4- and 5-year-old children had been to a dentist in the last year. Thirty percent had been to dentist, while 53% were without a dental visit. The dental status was unknown in 17%. Dental caries was found in 15% of the children, with 86% in need of further evaluation and/or treatment. Other dental problems, usually malpositioned or damaged teeth, were seen in 7% of the children.

We identified both the numbers and types of active or recurrent health problems for each child. Previously resolved health concerns were not included in this list. The most common problems, in addition to those mentioned above, are asthma and skin problems. Asthma, documented by exam or by history, was present in 26% of the children. Most, but not all, seemed to have an adequate treatment plan. Skin problems, generally eczema or atopic dermatitis, seborrhea, and diaper dermatitis were found in 22%. Two-thirds needed or probably needed further treatment. In addition, we found healed burn scars in 12%. Growth disturbances were present in many of the children. While most fit on the standard growth curves, more children than expected were at the extremes of the distributions of weight and height. Failure to thrive, based on a weight for height at $\leq$ 10th percentile, was found at the time of assessment in 9%. This is indicative of relatively recent undernutrition. However, short stature, defined as height for age $\leq$ 5 percentile, may reflect chronic poor nutrition. Nine percent of our sample had short stature. Obesity, a weight for height > 95th percentile, was found in 8% of the group.

We used the Battelle Developmental Screening Test and the Early Language Milestones Screen for children under 4 years of age. Overall, 58% of the foster children passed the developmental test, indicating normal progression of developmental skills. Of the 50 children identified as delayed on the Battelle, only 18 (36%) were receiving any form of intervention. Language skills were found to be age-appropriate in 86% of the 28 children less than 36 months of age.

Behavior was assessed by the Achenbach Child Behavior Checklist (CBCL) and the Connors Parent Rating Scales, administered to the caretakers. In the 2- to 3-year-old group, only about 2% fell into the disordered range on the CBCL. However 13%-14% of the 4- and 5-year-old children were in the psychologically disordered range. Particular problems were sleep disorders in 2- and 3-year-old children and aggression in 4- and 5-year-old boys. On the Connors Rating Scales, 28% of the girls and 30% of the boys had significant scores on the hyperactivity index. The common mental health problems identified in this study were developmental delays, hyperactivity, speech disorder, and aggressiveness. Consistently, relative caretakers underreported symptoms of psychological disturbance in the children.

We used total number of medical problems as an indicator of health status. Only 10% were free of any current or recurrent physical health problem. Nineteen percent had only one health problem, 29% had two health problems, and the remainder of the children had up to six medical conditions. Forty-two percent of the children had no psychological or developmental problem identified by the psychologists, 29% had only one problem, and the remaining 29% had between two and four separate mental health concerns identified.

CONCLUSIONS: We found a substantial number of unmet health care needs in these young children who have been in kinship care. When health problems were identified, the problems often were in need of further evaluation or treatment. Many of the children required medical and dental visits. While few children had major life-threatening medical problems, many had treatable conditions that, if remained untreated, would impair their future educational, social, psychological, and health status. One of the major problems with our assessment was our inability, after a significant effort, to obtain complete health information, including vaccines. Few conclusions can be reached regarding the adequacy of ongoing preventive health care or immunizations. This emphasizes the communication gap that exists in the system that is responsible for ensuring the care of these children. These children may receive repeated evaluations and examinations, but without the transfer of information, the best efforts of professionals are wasted.

The health of these children is worse than that of American children in general. However, because this was not a controlled study, it is not clear whether these children are worse off than children in other situations. When comparisons with other studies can be made, it appears that these children are similar, with respect to both physical health status and mental health status, to children in regular foster care and to poor, inner-city children residing with their families. However we have also found that many more mental health problems are manifested in the older children in our kinship care study. Over time, the multiple traumas which these children have experienced will effect many aspects of their development. This implies that early intervention programs may be crucial for a positive, long-term outcome for these very vulnerable children. Programs such as Head Start would be beneficial to many of these children to improve their level of physical, social and emotional health, and cognitive functioning.

Factors Affecting Agency Intervention and Services to Sexually Abused Children In and Out of Home

Patricia Ryan, Bruce L. Warren, Peggy Wiencek

During the last decade there has been a rapid increase in the number of reported incidents of child sexual abuse (Kempe, 1977; Finkelhor, 1979). Earlier studies of child sexual molestation (cf. DeFrancis, 1969) found a stranger or acquaintance as perpetrator in a preponderance of cases. Kempe (1977) challenged these findings as he had earlier challenged the assumed rarity of parental battering. During the last decade there has been a substantial effort to document the incidence of child sexual abuse and contributing factors, but relatively little study on the effects of various interventions. Disclosure of intra-familial child sexual abuse focuses attention on the family, and all family members are likely to suffer. A child cannot be left in a situation where the abuse is likely to continue; however, the decision to remove a child from the family has serious consequences (cf. Stein, 1981; Fernandez. 1983).

This study uses data collected from 263 case records of child welfare agencies in five states focusing on cases of intra-familial child sexual abuse. The victim in all cases was a female child, 3 to 15 years of age, and the perpetrator was the child's father, stepfather, or mother's-live-together-partner. Information was abstracted from the records for the period from one year before the abuse report until three years after the report, or until the case was closed, if this was less than three years after the report. This paper examines the level of societal interventions in relationship to outcomes for the child. It tests three major hypotheses: 1) the severity of the sexual abuse is directly related to the level of intervention; 2) the level of intervention is related to the child's reported behavior problems; and 3) the level of intervention is related to where the child is living three years later or at the time the case is closed.

Critics of protective services have observed that the decision to place children in foster care is more likely to be based on socioeconomic and ethnic characteristics of the family rather than the time or seriousness of the abuse (cf. Katz et al., 1986). Earlier analysis of these data (Ryan et al., 1991) found no relationship between socioeconomic characteristics and placement in foster care. This analysis found the extent to which mother was able and willing to provide protection to her daughter as the greatest determinant of whether the victim was removed from her home. This paper will examine the extent to which a broader array of interventions (mental health treatment, court hearings, agency monitoring of the home, and removal of the perpetrator as well as removal of the victim) is the result of the seriousness of the abuse. The analysis will then focus on the consequences of that intervention for the child looking at the child's behavior problems as one indicator of possible distress and the child's eventual reunification with the family as one indicator of long-term outcomes.

Analysis of the level of intervention and the child's living status at the end of the recording period shows that all relationships are statistically significant. However, part of this may simply be a function of the low level of services provided to many of the families where the child was not removed. For instance, in those cases where there was no mental health treatment, where there was no court involvement, and where the agency did not monitor the home it was very likely that the victim never left home. Thirteen percent of the children removed from their homes were still in foster care three years later. Only one child who was left in the home was in foster care. (Some children left or were ejected from the home but there were no official removal proceedings.) When the perpetrator is removed, there does not seem to be any difference in the proportion of children who are still in foster care at the end of three years. The analysis of variance and multiple classification procedures excluded removal of the victim and court involvement because these cannot be independent of the child's living status. This analysis showed mental health treatment negatively related to the outcome for the child but explaining only about 4% of the variance.

Serious abuse is related to court involvement in a case but is not related to the other services a child protection agency provides. The level of intervention, however, is positively related to the number of the child's reported problem behaviors. This might

be a function of using case records as the source of our data in that there were a number of cases in which the child's mother had ejected the perpetrator and the child seemed to be well protected. If the mother indicated that the child did not seem to have a lot of problems or that she was taking responsibility for finding treatment for the child, the case was often closed quickly. Thus, the lack of indication of problems might be due to a lack of follow-up.

These findings might be taken to suggest that intervention actually leads to more problems for the child. This is borne out by the finding that the more interventions, the more likely the child is to remain out of the family. However, it is likely that the level of interventions may be due to other factors that are not considered in this analysis, such as family dysfunction. It may be that seriousness of abuse is not necessarily a sensitive indicator of family dysfunction but that it is the general level of dysfunction that triggers the level of intervention and which determines whether the child will be left in the home or returned in a timely way.

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The Prevalence and Severity of Maltreatment in Family Foster Care *Mary I. Benedict, Susan Zuravin, Diane Brandt*

Child maltreatment is a health and social problem affecting over one million children and families per year. Although most maltreated children are provided services in their own homes, the foster care system is designed to provide substitute care for those children who cannot be cared for by their parents or who must be removed from their own families for their own protection. There are currently approximately 300,000 children in substitute care in this country. Since the mid-1970s, this foster care system has been under scrutiny by a variety of professional groups. As a result of this attention, legislation has been enacted to facilitate permanent living situations for children; many jurisdictions have proposed standards for reform in the provision of essential health and welfare services to foster children; and the federal Child Abuse Prevention and Treatment Act was amended in 1984 to require reporting of maltreatment by staff providing out-of-home care. Currently, 46 states mandate the reporting of suspected maltreatment of children in foster care.

Despite these accomplishments, there is still widespread concern that children placed in foster care for their own protection are not receiving the care that the state has an obligation to provide. These children, removed from their biological families often because of allegations of abuse and neglect, are further harmed, physically and emotionally, while in state custody. The scope and seriousness of maltreatment within most foster care systems is unknown. Estimates from 27 states (gathered before the 1984 amendment) range from 3 to 67 reports per thousand homes with substantiation, i.e., validation, of the reports after investigation, in 2 to 27 per thousand foster homes. Comparisons with community rates are difficult because of differing definitions, reporting, and investigation procedures across jurisdictions, but estimates of rates of maltreatment in the country ranged from 16 to 25 per thousand children in 1986. One research report was found comparing foster care with community rates of report. Bolton and colleagues (1981), comparing reported incidents of maltreatment occurring in Maricopa County, Arizona, foster homes versus all other types of living situations, found that the foster child population appeared to be at higher risk for being reported for maltreatment than the non-foster child population (7% versus 2%). These authors did not report on either substantiation ratios or types of maltreatment.

The current study purpose was to describe the frequency and types of maltreatment in foster homes in Baltimore, Maryland, asking the questions whether rates of report and substantiation differ for foster parents as compared to families in the community, and whether the distribution of the major types of maltreatment differs between foster parents and natural parents.

Foster family care usually refers to substitute care provided by families who have been previously approved by the public or by private child welfare agencies. These foster homes have been screened, evaluated, and licensed by the state and are typically approved for a specified number of children. In recent years foster family care has also been used to describe relatives and other caretakers previously known to the child who have received the same screening and licensing and are receiving foster care funds from state and federal sources. The Baltimore City Foster Care Program, a division of the Department of Social Services, supervises approximately 775 licensed foster homes open per year in Baltimore City. There are an estimated total of 2,700 children in care at some time during the year. If a maltreatment report is made against a foster home it is investigated by the foster care social workers. It is also investigated by Child Protective Services (CPS), the program within the Department of Social Services with specific responsibility to investigate and intervene where child abuse or neglect has been alleged. CPS is responsible for determining whether a report is valid (substantiated) or should be ruled out because of lack of evidence or other circumstance. A report may involve one or more children, and the same families may be reported at more than one time.

There are two differences in procedure for the investigation of maltreatment in foster care as compared to the community in Baltimore. First, no corporal punishment is allowed by foster parents as compared to the community where spanking as a form of discipline has not been legislated against. Secondly, both foster care personnel and protective service personnel investigate and in a joint conference decide whether a report is substantiated or not. In the community, an individual CPS worker would investigate and make that decision subject to supervisory review. Maltreatment definitions from the state of Maryland annotated code apply to both foster care and community incidents and are as follows. Physical abuse is any physical injury sustained as a result of malicious acts by any parent, adoptive parent, or other person who has permanent custody or responsibility for supervision of a child less than 18 years of age. Sexual abuse includes "any acts involving sexual molestation or exploitation, including but not limited to incest, rape, carnal knowledge, sodomy, or unnatural or perverted sexual practices on a child by any parent or other person who has permanent or temporary care or custody." Neglect occurs when a child has suffered or is suffering significant physical or mental harm or injury as a result of conditions created by the absence of his parents or custodian or by the failure of that person to give proper care and attention to the child and his problems. Reporting is mandated by health and other professionals in Maryland and all other states if there is reason to believe that maltreatment has taken place. All other citizens also have a right and an obligation to report if maltreatment is suspected. Substantiation or validation of report occurs when the injury or harm suffered by the child is clearly determined to be the result of a deliberate action by the caretaker, or there is strong evidence to suggest that the caretaker has injured or neglected a child.

METHOD: Data on maltreatment incidents in Baltimore City foster homes were abstracted from CPS investigation records for the years 1984-1988. Excluded were reports from group and institutional facilities that also provide out-of-home placement for children. The Baltimore City Department of Social Services provided statistics documenting the number of reports in the community during the years of interest. Since substantiation figures were not available from the city, data on numbers of substantiated reports were obtained from state of Maryland data. Estimates of numbers of families in Baltimore City with children under age 18 for the years of interest were calculated based on census information from the Maryland Department of State Planning. A variation of a person-time rate was developed. Since families are the basis for maltreatment reports, the equation was the total number of reports within the time period divided by the total family-time at risk observed over the interval. This figure may be interpreted as an estimate of the average family-time frequency over the interval.

RESULTS: Four-hundred sixty-four reports were received on 296 foster family homes between 1984 and 1988. Per year, an average of 12.1% of Baltimore City foster homes had one or more reports; recognizing that any one report could include more than one type of maltreatment, distribution of foster care reports over the five-year study period by type of maltreatment was calculated. Physical abuse was alleged in 60% of the reports, neglect in 17.4%, and sexual abuse 10.7%. Although the majority of reports identified only one type of maltreatment, 10.5% of the reports presented with combinations of maltreatment types, either on the same child or different children in the home. No trends appear evident over the five-year period.

Substantiation ratios differed by type of maltreatment. Where physical abuse showed the highest proportion of reports, sexual abuse had the highest substantiation ratio, with over 50% of reports validated. Physical abuse, on the other hand, had the lowest substantiation, with less than 10% of reports validated. Substantiation of neglect complaints appeared to decline from 40% to 20% over the time period, although neglect reporting rates increased slightly.

For individual children who had substantiated reports while in foster care placement, the most frequent physical abuse injury type was cuts/bruises with a relatively small proportion of children requiring medical treatment (14.2%). The missing information category is large (25%), because reports could not be received on incidents happening well in the past. Such an incident is investigated, but there is rarely physical or other evidence as to the extent or type of injury. Where sexual abuse occurred, intercourse or attempted intercourse was a component in 63% of reports. The type of neglect most frequently substantiated was inadequate supervision by the caretaker (34.9%). Neglect of the child's physical health care was the second most frequent type of neglect (31.4%), with neglect of hygiene, nutrition, and household sanitation found in over 20% of reports.

Foster care reports were compared to Baltimore City reports for the years 1985-1987, which was the time period available from Baltimore City records. Overall, foster families had over a three-fold increased risk of report as compared to families with children less than 18 years in Baltimore City. The risk of report was highest for physical abuse (ratio 6.34), with foster families having almost a four-fold risk of report for sexual abuse. The same families were 1.6 times as likely to be reported for neglect as community families. Comparison of substantiation was only available using State of Maryland figures for physical abuse and sexual abuse. (Figures for neglect are not collected.) Whereas there was a sixfold increase in report for physical abuse as compared to families in the community, the risk of substantiation was significantly lower in foster care than in the state as a whole (9.5% versus 34.8% substantiated). For sexual abuse, on the other hand, the risk of substantiation of foster care reports (over 50%) was very similar to that in Maryland as a whole, although reporting of foster homes was significantly higher.

DISCUSSION: Foster parents were significantly more likely to be reported in all categories than were families in the general community. In addition, the distribution of reports by type was different from that in the wider community. Physical abuse was the most frequent type of report, whereas city/state data indicate that neglect is the most commonly found type of report in the community.

Sexual abuse accounted for the smallest proportion of reports (13%), and the proportions were similar for both foster care and the community.

Substantiation after investigation also showed a different pattern in foster care as compared to the community for physical abuse, with generally lower substantiation in foster care, except in the area of sexual abuse, which had substantiation rates similar to those in the community. The high reporting may relate to the close supervision of foster homes by the child welfare system as compared to families in the community. Foster homes are much more likely to have outsiders visiting them on a regular basis so may be more at risk for scrutiny of their parenting practices than community families, resulting in biases toward increased reporting. This might affect particularly the neglect reporting which depends generally on observation of the home and the child, more than sexual abuse reporting. Sexual abuse is much more hidden from view, and reporting usually depends on the child telling someone or there is a behavior or health problem of the child that leads one to suspect sexual maltreatment.

It is possible that foster family size is greater than that of community families, given that many foster families have children of their own in addition to the foster children. This study could not measure that directly, but each additional child is one more child at risk of report within the family. On the other hand, these foster families have been thoroughly screened, including family interviews, police clearances, health records, and home inspections, before children are placed, so that there is the assumption that proper care is more likely to be assured than in the general community.

Physical abuse reporting accounts for the major proportion of the excess reporting in foster care and may be explained by the different criteria for report. There are the specific guidelines in Maryland related to corporal punishment by foster care providers. No corporal punishment is allowed at all, so that any spanking or other hitting of a foster child will usually lead to a report. Foster care workers are required to report any deviation from this no-hitting policy. These policies differ from the community regulations as a whole, where some jurisdictions (though not Baltimore City) still allow corporal punishment in the schools and attitudes toward corporal punishment vary according to local cultural norms. Substantiation, however, depends on the investigating team's judgment of the statements of the foster parents, the foster children, and others as necessary to understand the circumstances of the incident. Criteria for substantiation during that time period also required evidence of physical injury, which was not always present. Standards for substantiation are not so clear-cut as are standards for initial report. Anecdotally, the high frequency of physical abuse reports could be affected by the foster children themselves. Most of the children know of the reporting regulations, and some have been known to report their foster parents when they think it may help them return to their own family or move from their current placement.

Whatever the reasons for excess reporting, the impact of such reporting is extensive. Outside of the concern that children in foster care are not being protected and cared for as they should, as evidenced by substantiated maltreatment, there is a severe fiscal and program impact on the child welfare system generated by the sheer volume of reports. Beginning understanding of all the factors associated with reporting in this population is critical as a first step in the ability to intervene to develop and implement guidelines that better protect children, but at the same time impact on the number of invalidated reports.

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Discussion *John W. Hagen*

I think it is obvious to everyone who knows anything about the foster care system that we have just begun to scratch the surface in terms of doing research and evaluation; and we have heard four good examples today of various attempts to begin to get a handle on what the foster care system is, how it is working, what the problems are with it, and how it can be better. It is also fair to say that we really have very little data on how children in foster care are surviving or thriving as well as what problems they are having.

We also have to put the situation in some sort of historical and cultural context. A friend of mine who is a historian has argued persuasively, to me at least, that in the United States right now we have more children living with one or more biological family member than we have had at any point in time. This surprises a lot of people. As we look cross-culturally in terms of those statistics, we are probably doing quite well. But I think we also have to look at any particular society at a particular point in time in terms of what its values are and how it views different alternatives. Those of us who have been working with children for some period of time do not

have to think back too many years when a lot of the children who are currently in foster care were in institutions. I think that most of us are glad that many fewer children are in institutional care at this point and time.

Over the last 20 years we also have seen a shift to child-based policies by directors of agencies. The foster care system is trying to move in that direction. If we look at both policies and practices in adoption, we have seen dramatic shifts from the early 1960s to where we are right now. We need to see more of that in the foster care system. However, we do have to keep in mind that children who do get placed in foster care, whether it be for a short period of time or a long period of time, are children at risk. Most of the kinds of models that developmental researchers and researchers looking at psychopathology are using these days look at multiple risk factors. Most of the analyses seem to indicate that additive models seem to best predict and best account for what is happening. The more risk factors a person has, the more likely that person is to have problems and not be coping well. My particular area of interest is: What happens to children once they get in the foster care system and can we look at predictors?

I recently had the opportunity to attend the National Foster Care Association meetings in Minneapolis. This association has been dominated by foster parents, although many professionals are working with them at this time. It was interesting to hear about the problems that foster parents see. These foster parents are strong advocates for the children who are entrusted to their care, but they also express a lot of frustrations about the system with which they have to work. Although they are often sympathetic with their particular case workers, they are much more concerned and critical of the system and the policies with which the case worker has to live.

I have been a licensed foster parent for almost 20 years, through both public and private agencies, and have had many different kinds of children with me over the years. I have seen great problems with this system myself, but I feel a real sympathy for the people that have to work with us. The caseworker currently has 90 children on his caseload, and he can hardly keep up with the system. In Michigan our governor decided to cut various agency funds because of the state problems. Foster care payments were cut by 22%, which has meant a lot of parents have simply dropped out; they are not able or willing to continue to be foster parents. It also means that staff loads have gone up significantly. So, we are talking about a system that is just barely functioning and therefore is not a model of how a system could function.

Foster care is actually an incredibly inexpensive system. If we look at the alternatives, institutional or residential care, and compare them with foster care, we can see that the costs are much, much less. I think we quickly lose sight of that and only look what the costs of the current system are and try to come up with some way that we could cut back. I think that by using this approach we will never know if this system works. I believe very strongly that children should be in as home-like and family-like a setting as possible. We need to do whatever we can to perpetuate that and provide for those children who are not going to be able to live with one or more biological parents for significant periods of their lives. However, I see very few attempts to really make the system function as well as we would like to see it function.

Independent living was one of the topics that came up in the Minneapolis conference. I did not realize until then some of the problems with that system. It is very inflexible right now, partly because of the policies and partly because of the funding that has been made available. A number of foster parents indicated that in the independent living program they have had teenage girls who are pregnant or have had babies. The teenagers have to go through certain kinds of classes and learn certain kinds of things without any concern about their developmental level and whether they are at a position to deal with the system at that particular point. Not surprisingly, it appears that only a small percentage of them are actually getting what they are supposed to out of the independent living program. My foster son is moving into independent living now because it is his only option; either that or be dropped from the system. He is 17. He will be 18 in August, and he is nowhere ready to be on his own, but that is the only alternative. If he wants to have money to go on to college and if he wants to stay on Medicaid, he has to stay in independent living. Even though he is going to continue living with me, the whole system changes at that point. Suddenly he has to live with a much more stringent curfew than I impose on him. Somebody is going to pop in at two in the morning to see where he is and what is happening. It is a ridiculous system, and although they apologize for it they say it is the way it has to be. Maybe there are some systems in some states or counties that are more realistic than the ones I have encountered, but overall I am not terribly pleased with what I see going on.

Several of the papers today point out to us that we have increasing numbers of young children and infants coming into the system with more and more risk factors, so they are going to need more, not less, support. The families that take them in are going to need more training and more social supports and more economic resources if it is going to work. I am feeling frustrated myself with how we can assure that the system is going to work.

I think it is very difficult to do adequate research in this area. We are forced into using quasi-experimental designs rather than full-blown designs, to using certain comparison groups rather than true control groups, and we have real problems knowing whether the comparison groups are really comparable. In the last presentation we do not really know whether other children and families in the state of Maryland are comparable to those in foster care. We are going to have to work hard to minimize the problems that come up in trying to do evaluative or normative research in this general area.

AUDIENCE DISCUSSION

Questions were raised about predicting foster care outcomes in terms of adoption, remaining in foster care, or returning home. In an earlier study an important predictor was the extent to which the child made visits home while in foster care. In such cases the child was more likely to eventually return home, although the factors that determined why some families arranged for such home visits and others did not was not studied. In the kinship study, one variable that emerged was the extent to which foster parents participated in the long-term planning of the children. In another study, children were more likely to remain in foster care than return home when the foster parents were related to the biological parents of the child. In such kinship arrangements, it was pointed out, foster parents do not receive stipends nor are they mandated to receive social support services available to them. Higher incidence of health problems may be due to this non-participation in services. It also was also noted that, in general, foster children -- because they are poor and because of red-tape associated with the medicaid system -- might not receive adequate health care regardless of foster care arrangements.

Panel 111 MAINSTREAMING: IMPLEMENTATION AND ASSESSMENT

Chair: **Faith Lamb Parker**; *Discussant:* **Samuel J. Meisels**

Integrated Preschools as Settings to Develop Social Skills *Barbara Schwartz*

One of the key premises underlying the mandates of P.L. 94-142 and P. L. 99-457, to place children with disabilities in the least restrictive setting, was that mainstreaming would provide children with disabilities with models of appropriate social behavior and lead to their social integration (Wynn, Ulfreder, & Dakoff, 1975). In 1977, Strain and Shores had cautioned that if children with disabilities were to be successfully integrated socially, a major goal of the educational program would have to be the development of appropriate social skills -- a prerequisite for friendship (Coleman, 1990). The question to be examined now is: Are children with disabilities who are enrolled in integrated preschool settings, such as Head Start, displaying those social skills that are essential for friendships to develop? Review of research on social skills of children who develop friendships indicated three critical factors. These are the child's ability to: 1) initiate contacts, particularly through verbal means (Hazen, Black, & Fleming-Brown, 1984); 2) maintain contact in terms of the content (Gottman & Parkhurst, 1980), duration (Rubin, 1983), and number of verbal exchanges (Roopnarine & Field,1984); and 3) terminate interactions (Field, 1984).

METHOD: To examine the social skills of children in integrated preschools the following criteria were delineated: 1) children studied would be in Head Start or day care programs that had a minimum of 10 years' experience integrating children with disabilities with normally developing peers; 2) children would be observed while interacting with peers in their own classroom in the family/house area -- the setting most likely to elicit social interactions; 3) groups would include children with disabilities as well as normally developing peers from their classroom; 4) groups would be formed including same-sex children. Two urban Head Start programs and one urban publicly funded day care center from the New York metropolitan area were selected. Educational programs in all sites were based on a cognitive/ developmental model.

The subjects for the study were 48 children attending integrated Head Start and day care settings. There were 24 males and 24 females. Utilizing two levels of screening, 12 males and 12 females were identified as developing normally, and 12 males and 12 females were identified as children with delays. Children classified as delayed showed evidence of delay on the Denver Developmental Screening Test and the Clinical Delay Scale (Gordon, Gittler, Schwartz, & Ezrachi, 1975; Schwartz, 1982). Children designated as normally developing did not demonstrate delays in any areas on either measure. The subjects ranged in age from 42 months to 96 months, with a mean chronological age of 61.6 months (M CA Males = 59.72; M CA Females = 63.5). Subjects were from similar socio-economic groups and the ethnic balance within social interaction groups was maintained as closely as possible. The 24 children with delays in development had disabilities ranging from mild emotional, language, learning, and behavioral difficulties to children with cerebral palsy, seizure disorders, and neurological impairments. Degree of delay was established through the Clinical Delay Score (Gordon, et al., 1975). The Clinical Delay Scores (CDS) ranged from normal in all areas -- a score of 24 -- for the normally developing children, to evidence of delay in one or more areas, for the children with delays. The scores of the children with delays ranged from 9 to 22. The average CDS for the sample of children with evidence of delay was 20.54 (M CDS Males = 20.83; M CDS Females = 20.25). Twelve social interaction groupings, of two delayed and two normally developing children of the same sex, were videotaped as they were engaged in naturally occurring social interactions with peers in the family/house area of their own classrooms. The video system utilized included a built-in stopwatch mode, which enabled the simultaneous recording of the total length of the social interactions -- a measure of the duration of interaction. Each of the 12 groups of four children was videotaped for ten minutes, on four separate occasions over an eight-week period. This yielded 40 minutes of data per child. The basic unit for coding each child's behavior was the Social Interaction Unit (SIU), defined as a set of one or more sequences or exchanges terminated by a 30-second interval and/or a change in content. Each videotaped segment was coded for each of the four children in the social interaction group.

Analysis of data was based on aggregated data from the 48 subjects across the four ten-minute observations. Each of the independent variables of Sex of the Child and Degree of Delay (CDS) was examined with regard to the following dependent variables: commencing interactions as measured by Proportion of Initiations, Means of Initiation (visual, verbal, non-verbal); sustaining interactions as measured by Duration of Interaction (in seconds), Content (onlooker, social needs, fantasy play, aggression, teacher interventions), Number of Verbal Exchanges/SIU; terminating interactions as measured by Proportion of Termination.

Multiple regression analysis was used to examine the dependent variables with a single measure (Proportion of Initiations, Duration, Number of Verbal Exchanges; Proportion of Terminations).

To test the variables of Means and Content, in which there was more than one dependent measure, canonical regression was used. The distribution of Clinical Delay Scores (CDS) was positively skewed due to the requirement that normally developing children show no evidence of delay on this measure. To correct for this problem, a reverse transformation was used with all CDS scores creating a new variable called New CDS (NCDS).

RESULTS: The child's CDS contributed more than a child's sex to the likelihood of a child initiating contact with peers [$t(45) = 2.93$, $p<.01$], and the results were positive; CDS accounted for 15% of the variance in the proportion of initiations. Children with greater delays initiated more interactions. Canonical regression analysis was used to examine the extent to which CDS and Sex contributed to the Means a child used to commence an interaction. The categories selected for analysis were Verbal and Non-Verbal Means (Gesture, Touch, and Movement -- GTM). Two roots or factors were statistically significant. The first factor ($r = -.98$) reflected the child's sex and accounted for 46% (Wilks Lambda =.47, $p<.01$) of the shared variance between the dependent and independent variables. The second factor, accounting for 13% of the shared variance (Wilks Lambda =.87, $p<.05$), was clearly related to the degree of the child's delay ($r = -.96$). The sex of the child therefore accounted for a larger relationship both to the use of Verbal Means and the use of Non-Verbal Means. Girls were highly likely to commence interactions using Verbal Means and highly unlikely to commence interactions using Non-Verbal means. The closer to normal a child was functioning, the more likely the child was to use Verbal Means to commence an interaction. Average duration of interactions was calculated for each subject across all the subject's interactions. The results of multiple regression analysis indicated that the duration of interactions was not significantly related to either the degree of the child's delay or the child's sex, accounting for only 6% of the variance in the average length of interaction.

Selected categories identified in the research as key components of social interactions most related to a child's success with peers were utilized to permit a meaningful estimate of the requisite parameters. The categories selected for analysis were: Onlooker/Watching; Fantasy Play; and Aggression (Aggressive Fantasy Play and Aggression). Canonical regression analysis of the independent and the dependent variables generated two roots/factors that were statistically significant in explaining the interrelationship of the variables. The primary factor, accounting for 35% of the variance (Wilks Lambda = .54, $p < .001$), was strongly related to the degree of the child's delay ($r = -.95$). The second factor, explaining 16% of the variance, was strongly related to the Sex of the child ($r = .97$) and somewhat related to the child's level of delay. Analysis indicated that the more delayed the child, the more likely the child was to have had interactions coded as Onlooker/Watching and the less likely to have engaged in Fantasy Play. (Aggressive interactions were not a component of this factor.) The second factor, primarily accounted for by Sex and somewhat by CDS, indicated that the likelihood of involvement in aggressive interactions was very high for males, and probably more so if the child had a low CDS. This factor also indicated a modest relationship between the child's sex and involvement in fantasy play. Higher functioning females were more likely to have had fantasy play interactions. Sex was not related to whether a child would be an Onlooker.

To assess the extent to which the Number of Verbal Exchanges used was related to CDS and Sex, the average number of verbal exchanges for each subject was calculated. The regression of the Average Number of Verbal Exchanges within a social interaction on CDS and Sex jointly accounting for 25% of the variance was significant [$F(92,45) = 7.64$]. The addition of the interaction of CDS by Sex, accounting for an additional 5% of the variance, was also significant[$F(3,44) = 6.57$]. The results of the t-test for each of the independent variables of CDS and Sex were significant ($p < .001$) and their interaction approached significance ($p = .06$). These results indicate that both CDS and Sex affected the number of Verbal Exchanges within an interaction: the more delayed the child, the fewer verbal exchanges were present in an interaction. Males had fewer verbal exchanges, whereas higher functioning females used significantly more verbal exchanges during a social interaction than females of the same level.

The child's Degree of Delay (CDS) and Sex accounted for only 8% of the variance in the proportion of times that a child terminated interactions. Since the interaction term was not significant, the analysis focused on the main effects. The Degree of Delay was significantly related to the extent to which a child terminated interactions ($p < .05$). Children who were less delayed had a higher proportion of terminations of interactions. The results of the analysis of the social interaction units were: 1) Degree of Delay was significantly related to social skills. As the child's Degree of Delay increased the child initiated more interactions, used Verbal Means to initiate less often, was more frequently involved in Watching/Observing, participated in less fantasy play, used fewer verbal exchanges during interactions, and was less likely to terminate interactions; and 2) Sex of the child was significantly related to social skills. Females commenced contact more frequently using Verbal Means and males commenced contact more frequently using Nonverbal Means; females engaged in more Fantasy Play and males in more Aggressive interactions; females used significantly

more Verbal Exchanges within each interaction. The duration of the interaction was not related to either the child's Degree of Delay or Sex.

DISCUSSION AND IMPLICATIONS: The results of this study support and expand upon research that has found that after more than fifteen years of mainstreaming, children with disabilities continue to exhibit deficits in their social skills (Guralnick, 1990). Specifically, the results present data that two primary variables -- the content of interactions and communicative competency -- are key areas to understanding problems in the development of friendships between delayed and normally developing preschool children. In both areas there are greater concerns for males with disabilities than for females. The lack of involvement in fantasy play for children with greater delays, particularly males, is critical, since research has found that fantasy play provides children with a major opportunity to try out social skills within a play mode and contributes to development in other domains as well (Vandenberg, 1978). The deficits in communicative competency in the sample studied is a critical concern, particularly in Head Start programs in which a high proportion of children with diagnosed disabilities are classified as speech and language impaired. If, as the results of the present study indicate, children with delays, particularly males, are less likely to initiate contact verbally and to maintain verbal exchanges, then their social interactions may not be sustained. The relationship of these findings to the potential for friendship development is particularly salient, in that Roopnarine and Field (1984) found that among normal preschoolers those children who had more friends did more verbalizing and more turn taking. Therefore, in the present study, females and children who were less delayed will have a greater potential for establishing friendships with peers.

In summary, the results of the present study are consistent with the earlier research that merely placing children with disabilities alongside normally developing peers does not in itself enhance social skills. It appears that preschool children with disabilities may use social behaviors that lead them to be agents of their own exclusion from the social mainstream of the peer group (Cavallaro & Porter, 1980). In the present study this was indicated by the high proportion of Watching/Onlooker behaviors, the limited number of fantasy play interactions, and the lower average number of verbal exchanges in a given interaction.

There are several implications of these findings for integrated preschool programs, particularly Head Start. Although Head Start is the largest program integrating preschool children with disabilities and has reduced the likelihood of children needing special educational service in later years (McKey, Condelli, Ganson, Barrett, McConkey, & Platz, 1985), full social integration will not occur unless teachers actively plan the educational environment and implement activities to promote full social integration (Odom & McEvoy, 1988). One promising curriculum is Child to Child: Maximizing Opportunities for Social Integration (1991), which is being developed by Head Start's National Network of Resource Access Projects. This curriculum seeks to bring together the results of research in early childhood special education and develop interventions appropriate for Head Start and other integrated early childhood settings. Second, with many diagnosed children in Head Start receiving speech and language therapy as part of their related service, it is clear that these services would be best delivered within the classroom setting to maximize the child's opportunities for social interactions. Finally, by using naturally occurring interactions during dramatic play within the child's classroom, as opposed to a laboratory setting, the present study highlighted critical areas for concern and indicated areas for direct intervention. The development of appropriate curriculum models is predicated on the continued research to tease out the discrete and individual social skills that children must acquire in order to gain peer acceptance. Because peer acceptance and friendship are central to the future life of the child there is an ongoing urgency in our continued development of strategies in this arena.

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Utilizing Classroom Assistance to Implement Integration Strategies in Preschool Settings: Research on Effectiveness and Generalization *Keith Storey, Phillip Strain*

The negative consequences of social withdrawal have been well documented (Cowen, Pederson, Babigian, & Trost, 1975; Roff, Sell, & Golden, 1972; Strain, Cooke, & Apolloni, 1976). A variety of interventions designed to increase child-child interactions have been developed (Conger & Keane, 1981; Wanlass & Prinz, 1982). One approach that has received considerable attention is peer-mediated intervention (Odom & Strain, 1984; Strain & Kohler, 1988). Strain and Odom (1986) pointed out the potential advantages that peer-mediated intervention techniques offer over teacher-mediated approaches. The delivery of prompts and reinforcement by peers facilitates rather than disrupts ongoing child-child interactions. Further, the delivery of peer prompts and reinforcement can be more easily implemented over the period of time necessary to produce significant social behavior change than can teacher-directed interventions. In sum, peers are a powerful instructional resource that reduce the logistical limitations associated with teacher-mediated interventions.

Peer-mediated intervention has been shown to be effective in increasing the frequency of social behaviors of preschool and elementary school students with disabilities. However, such effects have been demonstrated mainly in clinical settings in which the researchers, or highly trained and motivated staff, implemented the intervention (e.g., Odom & Strain, 1986). One component that has not been well studied is how effective the intervention procedures are when implemented by classroom assistants in regular public school settings. Additionally, the social validity of improved child performance is rarely established. Strain, Storey, and Smith (in press) discuss the need for multiple assessment measures to achieve a more global understanding of the effects of an intervention on preschool children with developmental delays. Related to this issue is the importance of gathering information regarding the acceptability of the procedures to the intervenor. When classroom personnel are called upon to implement research interventions, it is important to know whether they will continue to use the procedures once the demands of participation in a study are removed. Finally, child performance data during training are important to acknowledge in that they provide valuable information to consumers regarding the rate of skill acquisition and any variability that might occur.

The goals of the present study were to teach classroom assistants to deliver the instruction and to implement the peer-mediated intervention procedures within the ongoing classroom activities that were used throughout the study. Thus, the purpose of the study was to assess the effects of a peer-mediated intervention technique on the social interaction behaviors of preschool students with developmental delays when implemented by classroom assistants within ongoing classroom activities.

METHOD: Twenty-four students selected on the basis of teacher nominations and direct observation by research staff participated in the present study. Of the 24 students, 8 were socially withdrawn target students with mild developmental delays, while the remaining 16 were socially skilled students without delays. Two target students and four socially skilled peers were selected from each of four preschool classrooms. Each target student, based on teacher recommendations, was paired with two socially skilled peers. This resulted in a total of eight triads (two triads per class). Four preschool classrooms located within regular elementary schools served as the training settings. Three of the rooms were Head Start classes. There was an average of 18 students and three adults (classroom teacher, itinerant teacher, and classroom assistant) per class.

A multiple probe across settings (classrooms) design was used to assess the effects of the peer-mediated procedures. Classroom assistants were taught the intervention strategies individually by project staff. Assistants were first provided a written description of the intervention strategies and the instructional procedures. Next, staff modeled how to describe and demonstrate the strategies to the peers with students not involved in the study. Finally, the classroom assistants practiced teaching the strategies to the students involved in the study. Corrective feedback was provided throughout the practice sessions by project staff. All sessions were five minutes in length. Each day the classroom assistant requested one triad at a time to participate in one of six randomly selected play activities (i.e., housekeeping, sand, water, dress-up, pet shop, and hamburger stand). Classroom assistants were instructed to encourage students to play with one another and to keep the students in the play area.

During the strategy training phase, peers were taught five intervention strategies by the classroom assistant. Each strategy was taught over a period of one to three days. The interaction strategies included "getting your friend's attention," "sharing," "share requests," "play organizers," and "compliments." The instructional procedures included 1) an introduction and description of the skill (e.g, "One way to get your friend to play with you is to share. When you share, you get your friend's attention, hand him or her a toy, and say `here'"); 2) modeling of the skill (e.g., "Watch me share with Bobby. This is how I want you to share with your friend. First I get Bobby's attention, `Bobby,' then I hand him a toy and say `here.'"); 3) practice with corrective feedback (e.g., "Now it's your turn to share. Pretend that I'm your friend. Show me how you could share a toy with me. Good. You got my attention and you handed me a toy, but you forgot to say `here.' Try it again. This time remember to say `here.'"); and, finally, 4) practice with the target child (e.g., "I'm

going to ask Jimmy to come over. I'd like you to try to get him to play with you by sharing with him."). Instruction included showing the students pictures depicting each skill on five 11" X 14" posters, which were then displayed during the play period. The "sharing" poster, for example, was divided in half, with the top portion showing two students, one of whom had an airplane in her hand and the other with no toy. The bottom half of the poster showed the one child handing the airplane to the other child. The classroom assistant would point to the appropriate poster and prompt students to use a particular strategy (e.g., "Remember to share with your friend, Billy") during the play period. In order to facilitate the assistant's use of prompting and contingent reinforcement of strategy use, they were taught to use a "happy face chart." The chart (14" x 28") included each student's name followed by five squares. The classroom assistants rang a bell, praised the student, and placed a happy face after that student's name each time the student used a strategy. If students obtained five happy faces during the session, they were awarded a tangible reinforcer (e.g., stickers).

A continuous 10-second interval observation system was used to code the social interactions of the students and classroom assistant. Observations were conducted during a five-minute play period following the assistant's instructions. Data were coded live and supplemented by videotapes. Five interactive behavioral categories for students were coded sequentially across participants.The categories included: 1) Initiation Strategies: Verbal and nonverbal behaviors that begin a social interaction. These included but were not limited to the specific strategies taught to the students; 2) Social Support: Utterances from one student, directed to another student to redirect a third student's behavior; 3) Script: Verbalizations that were specifically related to a structured play activity (hamburger stand or pet store); 4) Other: Any interaction or social behavior not fitting the definition or description of any of the other behavioral categories; 5) Response: Verbal or nonverbal acknowledging behaviors occurring after an initiation. Classroom assistant involvement with the students was also coded. Assistant praise statements (utterances reinforcing the use of a strategy or appropriate play) and prompts (utterances directing/encouraging interaction among the children) were coded. Distinctions were made between general statements or praises to the group or to individual students.

Procedural reliability was assessed daily by having research staff observe the classroom assistants implementing the procedures. A checklist was used and the following items were noted as being evidenced or not: 1) assistant introduces the skill; 2) assistant gives two or three general ideas of how to play with available materials; 3) assistant keeps students in activity area; 4) assistant prompts use of strategies. No feedback was given to the classroom assistants on this data.

Two different types of social validation data were collected. The first involved assessing the appropriateness of the procedures by obtaining input from the classroom assistants at the end of each phase of the study. The second involved assessing the social importance of the effects. This was done in two ways. First, the classroom assistants rated the target student's behavior at the end of each phase of the study. Secondly, parents of preschool children and experts in early childhood special education rated videotapes of the students during each phase of the study. Due to technical difficulties, complete segments for each phase were available for only six of the eight target students. The tape segments used were randomly selected from those available. Two different tapes were made with three students on each tape. The order in which the students were presented was randomized. For each student, one baseline, one strategy, and one enhanced-prompting and reinforcement segment were presented in a random order. The first two minutes of each session were shown. Half of the respondents watched the first tape; the other half watched the second tape. After watching a segment for each student, the respondents stopped and responded to the questions. The first five questions used a five-point Likert-type scale, whereas the remaining three were taken from Dunlap and Koegel (1980). Together, these ratings provided evaluative judgments of the students' social behavior. The respondents consisted of 13 parents and 21 professionals.

Inter-observer agreement on the direct observation system was assessed by having a second observer independently code 105 (47%) of the 225 sessions. Agreement was calculated based on each occurrence (for the target student, peers, and classroom assistant) recorded within intervals and a single nonoccurrence for intervals when no behavior was coded. Agreements were divided by the total number of agreements plus disagreements. Inter-observer agreement scores ranged from 35% to 100% per session, with a mean of 80.2% per session. In addition, in order to control for chance agreements, Kappa was calculated and found to be .77.

RESULTS: Baseline data on both target students at School 1 demonstrated a relatively low number of social behaviors ($\bar{x}$ = 1.4 for Kelly and $\bar{x}$ = 2.8 for Marvin) and social interaction strategy use by peers ($\bar{x}$ = 2.4 for Kelly's peers and $\bar{x}$ = 1.5 for Marvin's). A demonstration of experimental control is evident in that the social interactions of the target students increased when the peer-mediated intervention was implemented ($\bar{x}$ = 5.8 for Kelly and $\bar{x}$ = 11 for Marvin during the strategies phase), while the baseline rates for the other students remained constant. The peer's use of the strategies also increased ($\bar{x}$ = 5.9 for Kelly's and = 6.5 for Marvin's). During the enhanced prompting and reinforcement phase, Kelly's total social behavior increased to a mean of 13.8 interactions per session, and peers used a mean of 7.6 strategies per session. Marvin had a mean of 13.8 interactions per session during this phase, and peers had a mean of 7 strategies used per session.

For School 2, during baseline, Quinton engaged in low rates of interaction ($\bar{x}$ = 3.7), and peers seldom used strategies ($\bar{x}$ = 1.6 per session). Following strategies training his social interactions increased (to $\bar{x}$ = 5.4), but were still variable. Peer strategies use doubled to a mean of 3.2. During the enhanced prompting and reinforcement phase, his social interactions increased ($\bar{x}$ = 14.2) and became more consistent. Peers' strategies use increased to a mean of 8.6. Theresa's social interactions were at a relatively high level during baseline ($\bar{x}$ = 8.9). Peers used strategies a mean of 4.7 times per session. During the strategies phase, her level increased slightly ($\bar{x}$ = 9.8), but was inconsistent. Peers' strategies use dropped to a mean of 2.8. During the enhanced prompting and

reinforcement phase, her level increased two fold ($\bar{x}$ = 19) and became more consistent. Strategies use by peers increased to a mean of 9.9.

For School 3, Suzanne had very few interactions during the baseline phase ($\bar{x}$ = 0.4), and peers seldom used strategies ($\bar{x}$ = 1.0). Her levels of interactions increased during the strategies phase ($\bar{x}$ = 4.8), as did peers' use of strategies ($\bar{x}$ = 6.5). During the enhanced prompting and reinforcement phases her social interactions increased further ($\bar{x}$ = 11), while peers' strategies use dropped slightly ($\bar{x}$ = 5.5). April had a mean of 2.5 interactions per session during the baseline phase; peers had a mean of 2.9 strategies used per session. During the strategies phase, April's total social behavior increased to a mean of 5.3, and peers' strategies use increased to 4.3. During the enhanced prompting and reinforcement phase her social interactions increased to a mean of 9.7, and peers' strategies use increased to 6.7.

For School 4, Terry had a mean of 3.5 interactions per session during the baseline phase. Peers' strategies use was a mean of 4.4. Terry's social interactions increased to 18.0 during the strategies phase, and peers' strategies use increased to 10.6. Terry moved during the strategies phase and was not available for the final phase of the study. Timothy had a mean of 2.1 interactions per session during the baseline phase. Peers' mean strategies use was 2.2. During the strategies phase his social interactions increased to 10.8 per session; peers' strategies use increased to 5.3. His interactions increased further to a mean of 20.7 during the enhanced prompting and reinforcement phase, and peers' strategies use increased to 13.0.

Correlational analyses were conducted to examine the extent to which the target student's social behaviors were dependent upon peers' use of the social interaction strategies. The obtained Pearson product moment correlations for the target student's number of social behaviors and peers' number of social interaction strategies ranged from .53 to .80 and were significant at the .001 level. These correlations did not vary significantly across experimental conditions. A correlational analysis between classroom assistant prompts and strategies use across each phase found no statistically significant relationship. However, the overall mean frequencies of prompts for strategy use increased from baseline (22.6) to strategy (25.0) and enhanced prompting and reinforcement phases (25.1). The information from classroom assistants indicated that they liked the peer-mediated intervention and that its implementation required relatively little effort. Classroom assistants also reported that they believed that the peer-mediated intervention was appropriate for preschool settings and that the enhanced prompting and reinforcement phase was more effective for improving the social behaviors of the target students than the strategy phase, which was more effective than the baseline phase. At the end of the study, the classroom assistants were given a different questionnaire to socially validate the procedures. The results indicate that the assistants found the two interventions to be slightly more effective than baseline, that they liked the enhanced prompting and reinforcement better than the other phases and would be somewhat likely to use it in the future, and that the procedures would require minimal help to implement in the future. Social validation information from the parents and professionals entailed three comparisons for each question for each student (from baseline to strategy, from baseline to enhanced prompting and reinforcement, and from strategy to enhanced prompting and reinforcement). Only the comparisons that were statistically significant at the .05 level are presented. Forty-nine (34%) of the 144 comparisons were statistically significant. Of these, 26 (53%) showed more positive scores during the strategy or enhanced prompting and reinforcement phases than during baseline. Thirteen (27%) showed more positive scores during baseline and 10 (20%) showed higher scores during the strategy phase than during the enhanced prompting and reinforcement phase. These data also indicate that it took a mean of 16.9 minutes to teach each of the five strategies to the classroom assistants. Teaching the five skills to the students required a mean of 13.7 minutes per triad. It took an average of one day and seven minutes to teach the enhanced prompting and reinforcement strategy to the classroom assistants, with an average of 7.5 minutes per triad. These data also indicate that the classroom assistants were consistent during both the strategy and enhanced prompting and reinforcement phases in introducing the activity, giving two or three general ideas of how to play with the materials, keeping students in the activity area, and assigning roles for scripts. The area in which the enhanced prompting and reinforcement phase increased the assistant's behavior was in prompting use of strategies (from 77% of the sessions to 100%).

DISCUSSION: The results of this study, in general, are consistent with previous studies conducted with students with autism (Odom, Hoyson, Jamieson, & Strain, 1985), in that peer-mediated intervention improved the social behaviors of the target students. However, the instability in our data across the experimental conditions was inconsistent with previous reports (Strain, Hoyson, & Jamieson, 1985). The instability of the data could be attributable to differences in the type and quality of the social interactions of the populations under study. That is, the students with autism exhibit a more stable frequency of social behaviors because their social interactions are more directly dependent on the social initiations of peers than are those of students with less severe disabilities. The instability of our data could also have resulted from changes in the environmental conditions associated with each of the ongoing classroom activities. For example, activities such as the hamburger stand may require children to interact more than do activities such as the sandbox. Or, such instability may have resulted because the classroom assistants implemented the peer-mediated intervention less intensively and/or consistently than did the experimenters of previous studies.

One of the most important results of the present study is the demonstration that classroom assistants can be taught to effectively implement peer-mediated interventions. Information solicited from the classroom assistants also indicates that the peer-mediated intervention requires relatively little effort to implement and that it is conceptually and logistically appropriate for preschool settings. Furthermore, the results of this and previous studies, taken together, indicate that the peer-mediated social interaction

intervention is effective for improving the social behaviors of a wide range of students. These findings are important because as integration becomes more prevalent classroom personnel must implement effective instructional procedures to improve the social behaviors of a wide variety of students in school settings. Finally, the social validation data indicate that the classroom assistants liked the intervention procedures and thought that they were effective. Preschool professionals and parents generally found the student's social behavior to be more positive in the strategy and enhanced prompting and reinforcing vignettes than in the baseline vignettes. Though this and other research has demonstrated that it is possible to increase social interactions in tightly controlled situations (in our case, the triads), there is a need to examine generalization and maintenance more systematically. It cannot be assumed that social skills will automatically generalize and maintain (Storey, Smith, Danko, Strain, & Yan, 1991). As indicated above, there is a pressing need to use multiple dependent variables in assessing social skill interventions. It is unlikely that only one dependent variable will give a comprehensive assessment of integration and social skill. The use of multiple dependent variables will allow us to better analyze behavior changes, and as life-style changes become increasingly important, this analysis will help evaluate quality-of-life issues (Strain, Storey, & Smith, in press).

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Effectiveness of Integrated Programming in Early Childhood Education *Linda J. Miller, Kimberly Boyd*

While research indicates that a number of social and developmental benefits are realized for children who participate in integrated programming (Odom & McEvoy, 1988), there is agreement that important questions remain about the long-term effects of mainstreaming on child development and social performance (Beckman & Kohl, 1987; Fenrick, Pearson, & Pepelnjak, 1984; Odom & McEvoy, 1988; Salend, 1984). The focus of the Longitudinal Project is to examine the long-term outcomes for both typical children and those with disabilities in integrated settings, beginning with the preschool experience. The project involves a multivariate, controlled comparison of the longitudinal effects of integration across five years of data collection. Once each year, descriptive data are collected from each child and parent participant as well as from the teacher associated with each child for the given school year. As depicted in Overhead 1, the data include child outcome measures, parental opinions, and teacher opinions. This presentation summarizes the child outcome results obtained from the first year of data collection.

METHOD: The child participants included 168 typical children and 136 children diagnosed as having mild to moderate developmental delays. These children comprised two comparison groupings: 1) DD children in integrated settings (96) and DD children in specialized settings (40); and 2) typical children in integrated settings (96) and typical children in nonintegrated (typical) preschool settings where children with disabilities were neither systematically included nor excluded (72). All children were 3 to 5 years old. In this age range there were 23 3-year olds, 156 4-year olds, and 125 5-year olds. There were 155 boys and 149 girls. According to ethnic background, 201 were Caucasian, 89 were Black, 10 were Hispanic, and 4 were identified as "other." The adult sample included 304 parents and 57 teachers. The integrated programs participating in the study were drawn from eight school districts across the state of Pennsylvania. Comparison groups of specialized service providers for DD children and non-integrated typical preschool providers were recruited based on similarity of geographic area and SES demographics to the integrated sites, and reputation for high quality

service delivery. Altogether, children were drawn from 77 classrooms representing a variety of service delivery structures, e.g., Head Start, public school preschools, and public and private day care.

RESULTS: Data collection was organized around several research questions that focused on three major areas of interest: child outcomes, parental opinions, and teacher opinions. The results obtained respective to the child outcomes are presented.

A comparison of the DD groups in the various assessment areas of the Battelle Developmental Inventory: Screening Test (1988) indicated the two groups were substantially alike. Significant differences were not found in the personal-social, communication, motor, and cognitive domains, nor in the receptive, expressive, or fine motor subdomains. However, analysis did reveal significant differences in the adaptive domain, gross motor subdomain, and total score -- all in favor of integrated children. The typical group comprised 84 children in integrated settings and 64 children in non-integrated settings. There were no significant differences between the groups in any of the assessment areas of the Battelle.

The results of direct observation using the Interval Coding System for Social Interaction (Boyd, Hunsicker, McKinley, Miller, & Strain, 1990) indicated similar outcomes for the two groupings of children. In this assessment area, the rate of interaction, positive and negative interactions, and the duration of interactions were measured. Comparatively, the rate of interaction was the only variable yielding a significant difference between the DD children situated in either an integrated or specialized setting and typical children in the same arrangements. The favorability of the difference was in opposite directions, i.e., DD children in integrated settings interacted more frequently with peers than did DD peers in specialized situations, while typical children in nonintegrated settings were more active socially than their counterparts in integrated programs. Although this was the only statistically significant finding, a related trend in the data suggests that children with delays in specialized settings are at risk socially. Across-group comparison of the rate of interaction, rate of positive interaction, and rate of negative interaction indicates that the group to evidence the least favorable social outcomes were DD children situated in specialized settings.

Another pattern of interest in the data relates to the preference of children for social interaction with like peers -- e.g., typical children with typical children and disabled children with disabled children -- a pattern supported by the research literature on integration (Odom & McEvoy,1988). In this study, it was found that children with disabilities interacted with similarly identified children 23% of the time and with typical children 77% of the time. Similarly, typical children interacted with typical peers 75% of the time and with disabled children 25% of the time. The interactive preferences of children were virtually identical regardless of status as typical or developmentally delayed. The significant differences in social interaction did not parallel the differences found in social-skills assessments, according to individual assessments provided by teachers completing the Teacher Rating of Interactional Behavior (TRIB) (Odom, Kohler, & Strain, 1987). That is, the greater rates of interaction by the delayed children in integrated settings and typical children in non-integrated settings did not translate into significantly more favorable social-skills ratings for each. Rather, there was no difference in the teacher ratings of total positive and total negative for the DD children in the comparison program arrangements. Likewise, the pattern did not hold for the typical children. Although a significant difference was found in the teacher ratings between the two groups, the difference favored typical children in the integrated settings.

The Preschool Behavior Questionnaire (Behar & Stringfield, 1974) was used as the assessment tool in this area. This parent-completed measure produces a total score of behavior disturbed, as well as scores on three subscales: hostile-aggressive, anxious-fearful, and hyperactive-distractible. Analyses indicated significant differences between the groupings of DD children on both the hyperactive-distractible subscale and the total score, i.e., scores for the children in specialized settings indicated a higher level of behavior disturbance. Relative to the cut-off scores designated for each scale, the total score for the DD children in specialized settings was the only one to exceed the cut-off, suggesting that the child's behavior was out of the ordinary and that further examination and diagnosis might be warranted. A comparison of scores for the groupings of typical children indicated that there were no significant differences between the groups.

While the stability of all the aforementioned findings cannot be presently determined, the results from the first year of data collection offer interesting patterns of development and interaction for longitudinal study. Data analysis will be conducted respective to the groupings that remain from Year 1 and those established as a result of Year 2 change of placement, as well as associated parent, teacher, and administrator opinions and attitudes.

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Measuring and Evaluating Integration in Preschool Settings: Implications for Research *Keith Storey, Phillip Strain*

Social integration of students with developmental delays in preschool settings is one of the most significant challenges facing early childhood education (Odom & McEvoy, 1988). Unfortunately, defining and measuring social integration has been problematic (Haring & Breen, 1989; Wanlass & Prinz, 1982). In preschool settings, measures such as frequency of interactions (Strain, Shores, & Timm, 1977), sociometrics (Asher & Dodge, 1986), and friendship patterns (Strain, 1984) have been utilized. Not one of these measures has been found to comprehensively assess integration. A promising, yet relatively untried, methodology for assessing social integration involves clique analysis of social interactions.

Clique analysis consists of assessing how group members are connected directly or indirectly to other members through interactions (Alba, 1973; Luce, 1950). The term "clique" means a group of individuals in which each member is connected directly or indirectly to all others through interactions (Yan et al., 1990). Clique detection levels range from one to zero, and students involved at higher levels are more involved in interactions than students in cliques at lower levels or outside the clique. Generally, the higher the clique level and the greater number of people in the clique, the better for the individual child. Clique analysis has been used in analyzing integration in a supported employment site (Yan et al., 1990), help-seeking among researchers (Yan, 1988a), friendship and academic achievement in school settings (Bradley, 1979), and support relationships among politicians (Doreian, 1988). Advantages to clique analysis are that it is based upon direct observation data, it reveals relations among interactants, it analyzes the behavior of all persons in the setting and thus can demonstrate changing grouping patterns across time, and its structures include not only the interactors but also the magnitude of interactions between them (Yan et al., 1990). Hallinhan (1980) outlines several reasons for studying children's friendship cliques: cliques may play a role in influencing academic and social behavior; they may clarify exclusion from groups and suggest ways of integrating students; and clique membership may change over time and reveal social structure and relationships, and assist in developing interventions. One particularly attractive use of clique analysis is the assessment of social intervention effects across large (in terms of group membership) generalization settings. Several different approaches, such as peer instructional strategies (Strain & Odom, 1986), teacher-directed strategies (van den Pol, Crow, Rider, & Offner, 1985), and environmental arrangements (Burstein, 1986), have been used to increase social integration in preschool settings. However, how well these approaches generalize to noninstructional times has received limited systematic evaluation (Strain & Kohler, 1988). This lack of generalization assessment is unfortunate, because if trained social interaction skills are to be functional they must generalize across environments, subjects, behaviors, and time (Strain, Storey, & Smith, in press).

The purpose of this study was to 1) illustrate the use of clique analysis procedures in behavior therapy and 2) analyze the generalization of peer instructional strategies on students with developmental delays during freeplay settings using clique analysis assessment methodology.

METHOD: Four target students with developmental delays and eight nondelayed peers from two early childhood classrooms (two triads per class) participated in social-skills instruction. These students were part of a study analyzing peer-mediated instructional strategies for increasing social interactions (Storey, Smith, & Strain, 1991). Target students were selected on the basis of teacher nominations of students who were withdrawn and socially isolated during freeplay situations as well as by the informal observation of the researchers. Peers were selected on the basis of teacher nominations of students who were socially skilled and by the informal observation of the researchers. Both classrooms were located in elementary schools. There was an average of 18 students and 3 adults (teachers, classroom assistants, and itinerant teachers) per class.

A multiple-probe across settings design was used to assess generalization of the intervention procedures to the freeplay setting. One training session and one observation during freeplay occurred each day. Data are presented for the two schools (out of four) from Smith et al. (1991) in which clique analysis was available for all three intervention phases. The triads were supervised by the classroom assistant in a designated area and the play materials for that session were placed in front of the students. The classroom assistant then gave the students a few ideas about how they could play with the materials (i.e., "You be the doctor, you be the nurse, and you be the patient"). During baseline, the classroom assistants were told to introduce the activity, give two or three general ideas of how to play with the available materials, and keep the three students in the play area. The strategies taught to peers consisted of: 1) "Getting your friend's attention" by a) looking at your friend, b) saying your friend's name, c) gently touching your friend on the shoulder or arm if he or she is not looking at you, and d) keep trying; 2) "Sharing" by a) getting your friend's attention, b) looking at your friend, c) saying "here," and d) putting a toy in your friend's hand; 3) "Share requests" by a) getting your friend's attention, b) holding out your hand, and c) saying "Would you give me the _____?"; 4) "Play organizers" by a) getting your friend's attention, b) giving your friend a toy, and c) telling your friend what to do with the toy; 5) "Compliments" by a) saying nice things, b) patting your friend on the shoulder, or c) "giving five." More information on the settings, instructional strategies, and results are provided in Smith et al. (1991).

The Extra-Stimulus Prompting and Reinforcement phase consists of having the classroom assistant monitor the students' use of the strategies by using a "happy face chart." The chart contained each student's name with five squares following the name. The classroom assistants were taught that when a student used a strategy to ring the bell they should praise the student and put up a happy face after that student's name. Each of the three students were required to get five happy faces in order to receive a special

prize (a poster, book, crayons, etc.) based on individual contingencies at the end of the session. In each classroom, students had freeplay activity center options of: 1) housekeeping -- playing house, restaurant, baby sitter, etc.; 2) art center -- cutting out pictures, projects with construction paper, coloring, etc.; 3) paint center; 4) blocks -- building cars, spaceships, firetrucks, buildings, etc.; 5) sand -- building roads, making food, burying treasures, etc.; 6) water -- filling bottles, adding bubbles, driving boats, having a treasure hunt, etc., and 7) rotating center -- using playdough, legos, puzzles, games, etc. The average length of freeplay was from 45 minutes to 1 hour. Students at each site were free to choose an activity center. They were permitted to change centers, provided admission would not overcrowd it. No instructions were given to the classroom staff by the researchers concerning their behavior in the freeplay setting during any phase of the study. During freeplay sessions, each student in the class was observed in a random order for three continuous 10-second intervals with a five-second pause following each student. A student-focal data collection system was used in which all interactions involving that student were observed. During the 10-second interval, interactions were coded by writing down the participants in an interaction. For scoring purposes, all the adults in the room were coded together. Any universal statement made to a group was coded as a general statement. Only the first interaction during an interval was scored.

Social interaction was defined as two or more students manipulating or sharing the same object, talking to another student, using another student's name, responding to another student, or acknowledging another student. The following categories were distinguished for data collection: Initiates: The student begins an interaction with another student or with an adult; Receives: Another student or adult initiates an interaction to the focal student; and Ongoing: An interaction occurs with another student or adult at the start of the interval.

Reliability was assessed by having a second observer independently code 39 (46%) of the 85 freeplay sessions. Interobserver agreement was calculated based on interval-by-interval agreement on whether an interaction took place, who participated, and whether the interaction was initiation, receiving, or ongoing. Agreements were divided by the total number of agreements plus disagreements and multiplied by 100. Interobserver agreement percentages ranged from 52% to 100%, with a mean of 80%. In addition, to control for chance agreements, Kappa was calculated and found to be .72.

RESULTS: The algorithm employed in the analysis analyzed weighted networks as defined by Yan (1988a; 1988b). The three categories of data (initiation, receiving, ongoing) were combined into one category.

School 1. Kelly formed cliques at higher levels (.2 and .3) and with more students during the enhanced prompting and reinforcement phase of the study than during baseline and strategy phases. She interacted with the other students in the class and the mean during each phase of the study. She interacted more frequently with other students during the strategy (3% of the intervals) and enhanced prompting and reinforcement (10%) phases of the study than during the baseline phase (1%). Marvin formed clique levels at higher levels (.2, .3, and .4) and with more students during the enhanced prompting and reinforcement phase of the study. He interacted with other students in the class. The frequency of interactions increased during the strategy (4%) and enhanced prompting and reinforcement phases (7%) over the baseline rate (.005%).

School 2. Two of the original peers (students #10 and #14) moved at the end of baseline; student #18 was substituted for #1 and student #9 was used twice as a peer. Student #16 was present only three days during baseline and was not included in the data analysis. The first clique was detected with students #7 and #13. The first target, student #2, does not become a member of a clique with all of the students, except #11 and #12, until level .2. The other target, student #12, is not part of any cliques during baseline. Both target students were clique members with all but four students (numbers #5, #15, #18, and 19) at level .3. Quinton formed a clique with all of the students except #6 and #18 at level .2. Theresa formed a clique with students #11 and #15 at level .5. Quinton was in higher cliques and with more students during the strategy and enhanced prompting and reinforcement phases of the study. He interacted with the other students in the class in an inconsistent pattern. Theresa was in higher clique levels and with more students during the enhanced prompting and reinforcement phase of the study. She interacted with other students in the class. The overall mean indicates that her interactions were higher during the strategy and enhanced prompting and reinforcement phases than during baseline.

DISCUSSION: Clique analysis appears to be a promising methodology for assessing integration in preschool and other settings. Clique analysis needs to be utilized more, perhaps in conjunction with other methodologies (i.e., social validation to measure the quality of interactions and sociometrics to study friendship patterns), in assessing integration. An advantage to clique analysis is that a unique measure of integration is provided because the behavior of all individuals is analyzed. This analysis may provide a more comprehensive picture of social integration than assessments that examine more discrete behavior of a smaller number of individuals. In addition, it is important that clique changes over time be assessed. This has seldom been researched (Hallinhan, 1980), but should prove beneficial, especially in conjunction with intervention procedures utilizing single-subject research designs. A limitation of this study is that frequency of interactions may not be the best indicator of integration (Asher, Markell, & Hymel, 1981; Foot, Chapman, & Smith, 1980). Other factors such as quality of social interactions, adequacy of social networks, and personal satisfaction need to be considered as well. There is also a pressing need to expand the number of dependent variables when assessing integration (Furman, 1984; Voeltz & Evans, 1982). Factors such as popularity, gender, and type of interactions (such as cooperative play, social

conversations, and arguments) also need to be considered (Ladd, 1983). The ability of clique analysis to assess these variables is currently unknown. However, clique analysis is likely to prove adaptable in measuring a wide variety of dependent variables.

One of the most important considerations concerning integration in preschool settings is whether students with and without disabilities interact with each other. The results of our study further support research that peer-mediated instructional techniques are effective, and, additionally, that there is likely to be some generalization to non-instructional times. The results of our study indicate that the target student's frequency of social interactions increased from baseline during the freeplay settings and that they were more likely to form cliques at higher levels with other students. Because there were only six observation sessions for the baseline phase at school 1, this data should be viewed with caution. However, it is not clear how many observations or how much total observation time is needed to adequately assess cliques in preschool settings.

Future research should further assess generalization from instructional to noninstructional times. This generalization has been assumed more than it has been empirically assessed. Further research on how to develop instructional procedures for facilitating generalization (Horner & Albin, 1988) is also needed. Clique analysis may prove helpful in assisting the development of intervention strategies. By knowing the pattern of student interaction it is possible to promote strategies in which isolated children are brought into cohesive cliques to foster social interactions. Especially needed are instructional procedures that can be readily implemented by minimally trained staff.

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Discussion *Samuel J. Meisels*

You have presented interesting ways of looking at the issues and the problems of mainstreaming or integrating disabled kids in regular classroom settings. One of the very significant factors that is common to all the papers is that the settings that are being described are typical or generic settings -- community settings. In large measure, they are Head Start programs. They are not laboratory situations, but the kind of programs that many of us work with on a regular basis and don't have to get research grants to set up. I think back to when I did research and what happened to me. My first grant was from the Massachusetts DD Council to begin to integrate disabled kids into the lab school at Tufts in 1973. I began doing this before PL 94-142 was enacted. There was a great deal to tell people about what happens when disabled kids are brought into regular classrooms -- classrooms that were superb child development programs, that instituted specific models of open education. It was a different type of intervention program from the one that Storey was describing, and had more in common with the programs that Schwartz, Miller and Boyd were observing.

Over the years, the research findings have been relatively positive about the effects of mainstreaming in early childhood. We have found that children with disabilities in mainstream programs demonstrate about the same rate of development as they do in self-contained programs. Usually, the advantage is to those children who are integrated, as in some of the findings that were presented today. We have seen research that shows us that children with disabilities engage in generally higher rates of peer-related social behavior in play, and that their play is more constructive in integrated programs than when similarly disabled children are in self-contained or specialized programs. We have seen research that shows that normally developing children -- the so-called typical children, or non-disabled children -- are not likely to suffer from the experience of mainstreaming, either by imitating inappropriate behaviors of peers who are disabled or through a reduction in their own developmental progress by virtue of being in a mainstream program. The research has also taught that normally developing children often make appropriate development level adjustments when communicating with peers with disabilities. This is a somewhat controversial statement, because it is dependent upon context. No data that I have seen have been published that indicate that segregated programs are superior to integrated programs for children with mild and moderate disabilities. These are the kids who are the subjects of the studies that we have heard described today. As we have heard from Miller and Boyd, several of these kids who were within the disabled group when they entered public school were no longer considered disabled. This may be a false classification on the part of the schools. On the other hand, it may be the success of the integration, or it may be an indication that they were only mildly involved. Nevertheless, despite all the positive information we have from the research, barriers still exist in areas of early childhood and early childhood special education. There is a range of such barriers. One has to do with philosophical and theoretical differences between early childhood people and early childhood special educators. It's a situation I find myself in very often, because I work in both areas. There are some different approaches and orientations. The orientation of the child-directed program or child-directed approach, as opposed to the more didactic, teacher-oriented, direct-instruction approach, is implicit in a fair amount of special education work that has also come down into early childhood special education. The differences are between the attention to developmentally appropriate practice, as described by NAEYC, as opposed to the more behavior therapy oriented approach that is represented in a lot of early childhood special education programs.

These represent very different orientations to overcome, which I don't think has been done. The assumptions about children, about the role of the teacher, and the joint contributions of teacher and child to the educational process are quite different in those two approaches. These represent a barrier to the progress that we need to see in this area. I see also barriers in personnel preparation. Early childhood general educators are not trained to work with disabled kids; neither are early childhood elementary school teachers. That has been a goal, and has been successful only in spotty situations. As a professor in the School of Education, I know how little knowledge our students have about special education. That holds true in early childhood as well. In terms of early childhood special education, we don't have enough child development taught to special educators. Another barrier to consider has to do with attitudes, particularly of practitioners. There is still a great deal of misinformation, fear, and anxiety among general educators about disability. I think we have brought it down to a more manageable level over the years, but there is more attitudinal work that needs to be done, not only among our staff but also among parents. On the national level, we are being exposed to an inclusion movement that is trying to bring more disabled children -- quite severely disabled children -- into regular classrooms. Parents and teachers are reacting to that with a fair amount of anxiety.

Turning now to the studies, I want to make a couple of points. My understanding is that we are talking about programs that enroll mildly to moderately involved children. That is an important point. In the study that Schwartz described, she used an innovative technique of videotaping -- something that can be of great value to us in the field -- to study the social skills of disabled and non-disabled children, and found that children with disabilities exhibit delays in their social skills. There seems to be a lack of involvement in certain kinds of experiences, in fantasy play, and in certain types of experiences that require more abstract thinking and entail more interaction with peers, more complications of constructing a clique around those kinds of activities. As Schwartz said, preschool children with disabilities may be agents of their own exclusion from social interactions. To an extent, that seems to indicate the need for intervention, the need to help children who exhibit those kinds of problems to overcome them, to help place them in settings where that can take place and where their social interactive skills and their associated cognitive skills, because the two are so highly correlated in early childhood, can be facilitated.

The question is, What kind of intervention are we looking for? Boyd reported very early results of a longitudinal study. I look forward to seeing what happens to the children as they enter public school and what goes on after that. Again, we see that the integration experience is by no means a negative one. Compared to similar children in specialized settings, it seems that these children are doing quite well in the integrated settings, and that there is more acting out or more behavior-related problems shown in the specialized settings than in the integrated settings. These studies are beginning to help us formulate a baseline to understand what the effects of integration are and to help strengthen the arguments that this is an important innovation that should be tried. This will further naturalistic descriptive study and will lead to more questions about intervention. What should we do to overcome some of those deficits? That leaves us with the only intervention study on our panel today: Storey's study. My view is quite different from Storey's. His data are certainly unassailable, and they do show improvement in the social skills of the children involved in this type of intervention. The social skills instruction that we saw is very directed, very focused. It is highly systematic and very well documented. The idea of putting together peer confederates to work with disabled children represents one perspective; I don't think that we have

sufficiently explored alternatives. There is much more research about this type of social skills training program than research about a less rigorous approach represented by more normal classroom interactions. We don't have that research yet. It may be that the data will not be supportive. We haven't yet disproved other approaches. Why am I uncomfortable with the approach that is represented? When we have a disabled child and non-disabled children, we are saying to the non-disabled child that we want you to treat this disabled child differently from all the other peers and we want you to treat them differently with regard to social interactions. One has to wonder what are we teaching besides the social skills. Are we teaching them that the disabled child is a different kind of person? In what way are we teaching them that he or she is a different kind of person? Are there implicit within our perspective two psychological points of view: one of normal development and one of disabled development? The disabled child is treated in this situation, but does not have an opportunity to react and take a leadership role in return. The disabled child is the recipient, not the child who is participating. I wonder about transferability. You have some generalization data, but I wonder about transferability to different settings. What are the attitudes that we are instilling in the non-disabled children, as well as in the disabled children, about what they can and cannot do for themselves? I wonder about going into Head Start programs and taking aides who have the least background and involving them in a behavior modification program of this sort. And I wonder about the use of external prizes and rewards for what should be an end in itself.

These are some of my concerns. What might be an alternative? One alternative could be that, instead of focusing on the framework of social interaction, we focus instead on the content of interaction. We could structure classroom experiences to be extremely rich. We could structure programs around very small groups. We could structure them around interest areas and in such a way that there would be multiple opportunities for children to access curriculum, so that those with lesser abilities would still have a valid and important role.

The non-disabled children would then be able to see that their disabled peers can teach them something. For seven or eight years, I watched and documented and wrote about this kind of curriculum. It is something that can be done. One then needs to think about that curriculum as extremely rich, as having small, positive ratios of staff to children, as being one in which the teachers and the parents are highly informed and constantly involved in staff training, a curriculum where there are special needs personnel available. It is an expensive program. My hope is that such a program would institute a single psychology, especially for mildly to moderately involved children, rather than two psychologies, and that the long-term benefits to our society would be seen.

Panel 112 IMPACT OF HOME ENVIRONMENT AND INFANT CHARACTERISTICS ON COMPETENCE

Chair: **Sharon Ramey**; *Discussant:* **James Egan**

Differential Effects of Poverty on Intellectual Development: A Developmental Cluster Analysis

Margaret R. Burchinal, Frances A. Campbell, Barbara H. Wasik, Craig T. Ramey

A cluster analysis estimated prototypic patterns of intellectual development for poverty children. Comparisons indicated that intervention day care was associated with higher Iqs across time. The stability and quality of the home environment and infant characteristics seemed to differentiate children who tended to show gains from those who did not. Interestingly, children with different trajectories did not always have different academic achievement levels. Many early intervention programs, such as Project Head Start, have been implemented for children from poverty families, and considerable research has been conducted to determine their effectiveness (e.g., Lazar, Darlington, Murray, Royce, & Snipper, 1982; Lee, Brooks-Gunn, Schnur, & Liaw, 1990; Ramey, Bryant, Campbell, Sparling, & Wasik, 1989). While these studies have demonstrated the value of early intervention, they do not tell us about differences in patterns of development for treated and comparison children. Understanding the variables related to different patterns of intellectual development could help guide new initiatives or changes within existing programs. The purpose of this study is to identify prototypic patterns of cognitive development for poverty children and to determine characteristics of the child, family, and environment that differentiated these clusters.

METHOD: The data come from two longitudinal prospective studies of educational interventions for socioeconomically disadvantaged children. Children from in or around Chapel Hill, NC (a southeastern university town) who were determined to be "at risk" for school failure due to socioeconomic factors were recruited to participate in longitudinal studies on the effectiveness of early intervention. The Abecedarian Project recruited children born between 1972 and 1978 and randomly assigned them to either a day care treatment or control group (Ramey & Campbell, 1987). Project CARE recruited children born between 1978 and 1981 and randomly assigned them to one of three treatment groups: day care plus parent education, parent education only, and control (Ramey, Bryant, Sparling, & Wasik, 1985). In this paper, the sample consists of the 141 children from the two studies with complete IQ data in the three preschool treatment groups that began during infancy and lasted until the children entered kindergarten: a high-quality university-based Daycare center intervention (n=59), a Family Education intervention in which home visitors delivered an educational curriculum in the home (n=35), and a Control group (n=47). In addition, half of the Abecedarian children were randomly assigned to a school-aged intervention. Those children and all CARE treatment children received a Home-School intervention in which a resource teacher

supplemented their regular curriculum (n=80). For this university community, the sample would have been eligible for Head Start. The sample was mostly African-American (95 %; 5% white/non-Hispanic). At the birth of the child, the mothers tended to be young (M=20.4, sd=5.0), single (88%), and had less than a high school education (M=10.5, sd=1.8). About half of the children were male (54%). Many of the children experienced major disruptions in their daily routines; during their first five years, 32% had moved more than three times and 12% had lived away from their mothers.

Random assignment to the Parent Education or Control groups did not preclude families from making their own child care arrangements. Among these 82 children, 51 attended at least one of the eleven local community day cares regularly (i.e., for at least 12 months). The quality of care at these centers was probably good. The university and community day care centers were certified by the state as meeting the existing federal standards; both the university and community centers maintained at least the minimal recommended caregiver-child ratios (i.e., 1:4 for 0-2-year-olds, 1:5 for 2-3-year-olds, and 1:7 for 4-5-year-olds) and met criteria for safety, sanitation, nutrition, health, and the director's education level. In addition, the university day care provided better salaries (thus, much less staff turnover), regular in-service training, and specified curricula.

All children were assessed with an age-appropriate cognitive test between the ages of 6 and 96 months: the Bayley Scales of Infant Development (MDI) (Bayley, 1969) at ages 6, 12, and 18 months; the Stanford Binet (SBIQ) (Terman & Merrill, 1972) at 24, 36, and 48 months; the McCarthy Scales of Children's Abilities (GCI) (McCarthy, 1972) at 42 and 54 months; and the full-scale IQ from the WPPSI at 60 months and the WISC-R (Wechsler, 1974) at 78 and 96 months. The infant's activity level, cooperation, and task orientation during the Bayley tests were recorded on the Infant Behavior Record (IBR). The responsiveness and stimulation of the home environment were assessed annually from 6 to 54 months with the Home Observation for Measurement of the Environment (HOME; Caldwell & Bradley, 1978). Annual updates recorded changes in parental marital status, family composition and locale, and the child's day care experience. The mothers' attitudes (democratic and authoritarian) also were measured with the Parent Attitude Research Instrument (PARI; Schaefer & Bell, 1954). At the age of 8, all children were individually administered the Woodcock-Johnson Psycho-Educational Battery, Part Two (Woodcock & Johnson, 1978), and their classroom behaviors were rated by their teachers using the Classroom Behavior Inventory (CBI; Schaefer & Edgerton, 1978).

RESULTS: A cluster analysis of the cognitive scores was performed to identify prototypic patterns of intellectual development among these children. The 11 cognitive scores were standardized within sample to remove effects associated with changing tests. A hierarchical cluster analysis (Ward's method) identified clusters of children with similar individual intellectual growth curves. The six-cluster solution was the most parsimonious, accounting for 68% of the variance in the 11 scores. The six clusters describe very different patterns of development. The first cluster consisted of five "superstars" who scored one to three standard deviations above average, showing gains during the school years (labeled Increasing, Above Average). The next cluster consisted of 17 children who tended to score above the sample mean at all ages and to show cognitive gains during the preschool years and slight declines during the early school years (labeled Quadratic, Above Average). The 43 children in the third cluster tended to score above the mean for the 141 children and show stable scores after infancy (labeled Stable, Above Average). The 43 children in the fourth cluster had a pattern similar to Cluster Three, but tended to score about 10 points lower (labeled Stable, Below Average). The fifth cluster contained 13 children who had below average scores during infancy, but scored near average during the school years (labeled Increasing, Below Average). Finally, the 20 children in the last cluster displayed the anticipated patterns associated with poverty, showing dramatic declines during the preschool years (labeled Declining, Below Average).

The next set of analyses determined which child, family, and environmental characteristics were associated with the identified patterns of development. The general analysis strategy involved two sets of analyses.First, the smallest cluster (the "superstars") was compared with the other clusters because it was so small and so different from the other clusters of children. Then, the other five clusters were compared with one another. The first analyses asked whether the clusters differed in terms of the preschool and school-aged treatments. While those in the small cluster of "superstars" were not more or less likely to have received any of the treatments, the children in the other above average clusters were much more likely to have received the preschool treatment than the children in the below average clusters (chi-square=37.15, df=4, $p<.0001$). The second set of analyses compared the clusters on the mother's characteristics at the child's birth. The only significant difference that emerged involved the comparison of the "superstars" with the other clusters on maternal IQ; the "superstars" had much brighter mothers on average than did the other children ($F(1,135)=19.19$, $p<.0001$).

The next set of analyses compared the clusters on child characteristics during infancy. The clusters did not differ on gender, but did differ significantly on ratings of the infant's level of cooperation and task orientation during the Bailey assessment. The "superstars" were significantly more task-oriented during infancy than the other children ($F(1,134)=12.54$, $p=.0005$). Comparisons of the other children revealed that the children in the "above average" clusters were more cooperative ($F(1,133)=8.88$, $p=.003$) and task oriented ($F(1,134)=34.03$, $p<.0001$) during infancy than children in the "below average" clusters. In addition, children displaying declining IQ scores over time were more likely to have lower ratings than children in the other two "below average" clusters during infancy and task orientation ($F(1,134)=10.79$, $p=.0013$), and were characterized by different patterns over time ($F(2,133)=3.81$, $p=.025$). While children in other clusters tended to show linear increases in task orientation over time, the children in the declining cluster showed little linear change over time.

Next, we examined the family and home characteristics during the child's preschool years. The "superstars" had mothers who were less likely to have authoritarian parental attitudes ($F(1,135)=5.51$, $p=.02$). They were more likely to have experienced stimulating home environments ($F(1,123)=5.47$, $p=.02$). In addition, compared with the children in the "below average" clusters, the children in the other "above average" clusters had much more stimulating homes on the average ($F(1,123)=18.56$, $p<.0001$) and were less likely to have moved frequently (Chi-square=17.92, $p=.001$). Similarly, the homes of the children in the declining cluster were much less stimulating homes than were the homes of the children in the stable clusters ($F(1,123)=9.86$, $p=.002$). The clusters did not show different patterns in HOME scores over time. Center-based day care experience was also related to these clusters. Compared with children in the "below average" clusters, children in the "above average" clusters attended day care centers longer ($F(1,138)=39.49$, $p<.0001$), beginning at younger ages ($F(1,123)=24.98$, $p<.0001$). In addition, the children showing declining scores over time experienced the least center-based day care ($F(1,133)=12.63$, $p=.005$), changed day care most often ($F(1,133)=9.68$), $p=.002$), and began attending day care later ($F(1,123)=6.35$, $p=.013$) than children displaying stable patterns of IQ development.

Finally, we compared the academic achievement of the six clusters at eight years of age. Very similar patterns emerged. Even controlling for the preschool treatment effects, the superstars out-performed the other children in reading ($F(1,131)=25.86$, $p<.0001$), math ($F(1,132)=20.69$, $p<.0001$), and proportion retained in grade, but not on teacher ratings of classroom behavior. Ignoring the superstars and controlling for preschool treatment, the children in the "above average" clusters tended to do much better than the children in the "below average" clusters in reading ($F(1,131)=16.49$, $p<.0001$), math ($F(1,132)=32.83$, $p<.0001$), and proportion retained in grade, but not on teacher ratings of classroom behavior. Again, the children whose IQ scores declined over time were having more trouble with reading ($F(1,131)=24.37$, $p<.0001$), math ($F(1,132)=47.48$), $p<.0001$), and were most likely to have been retained in grade by the age of 8. Surprisingly, two of the "above average" and two of the "below average" clusters did not differ significantly on academic achievement, suggesting that children's academic achievement may be similar even when their intellectual developmental trajectories are different.

In summary, comparisons of the Increasing, Above Average cluster of five children and the other clusters revealed that the "superstars" had three distinguishing characteristics: their mothers were much brighter, their homes were more stimulating, and the children performed better in school. Comparisons of the other clusters followed. First, comparing the "above average" and "below average" clusters indicated that two Above Average clusters were more likely to have received the day care intervention, to have moved less frequently, to have less authoritarian mothers, and to have more stimulating home environments. Second, we asked whether the two Above Average groups differed on any of the selected characteristics. The two Above Average clusters differed in that the cluster in which children displayed quadratic growth (showing an increase and a decrease in IQ scores over time) consisted of children who were more likely to have attended the intervention day care and have more stimulating homes than were the children in the Stable, Above Average cluster. Third, we asked if the three Below Average groups differed on the selected characteristics. The three Below Average clusters differed in terms of day care experience and the disruption and quality in home environment. The children in the Declining, Below Average cluster had the least stimulating homes, most disrupted lives, least day care experience (either intervention day care or community day care), and were the most difficult as infants (less cooperative at 6 months and task-oriented at 18). The children in the Increasing, Below Average cluster had more stimulating homes during the preschool years than did the children in the other Below Average clusters.

DISCUSSION: The results of this study draw attention to the child, family, and environmental variables that significantly influence children's early intellectual development. Attending a quality day care center during the preschool years was associated with higher IQ scores across time. Children who tended to score above the sample mean were most likely to have attended the high-quality early intervention day care or quality community day care centers. Though children who tended to have higher IQs across time were more likely to have attended day care, a number of other variables stand out as important influences in the lives of young children. First, the stability and quality of the home environment seemed to differentiate children who tended to show gains from those who did not. Second, the children with the brightest mothers tended to have the most stimulating home environments and to do much better than the other children. Third, children with different cognitive development growth trajectories did not always look different at age 8.

These findings help us keep in perspective the multiple influences on children, and call attention to the need to assure that early intervention programs provide stable, stimulating preschool experiences while focusing on the broader environments in which children are reared, providing support for family functioning in a way that reduces the negative influence of family disruption and disorganization in their lives.

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Parental Care, Infant Temperament, and the Development of Early Competence in a Low-Income Sample

Joan I. Vondra, Cynthia L. Morse, Daniel S. Shaw, Cynthia Gray, Lora Rendulich

Children from impoverished homes are at risk for problems in both their cognitive and their socioemotional functioning. It is also the case, however, that certain children from adverse home environments exhibit a range of adaptive behaviors -- behaviors associated with competence and adjustment at home and in the school environment. This second pathway, to coping and resilience, has received considerably less attention from researchers, but represents an equally important developmental trajectory linking family circumstances and parent-child relations to individual functioning and developmental outcomes. In both cases, preliminary research findings suggest that measures of infant functioning, of parental behavior, and the infant-parent relationship can provide insight about subsequent development, especially adaptation and competence in preschool. Data support the idea that each of these factors is linked to child outcomes in part through its impact on infant coping and mastery motivation. In order to understand the origins of competence in early childhood, we need to think about how early characteristics of both the infant and parent shape the way in which that infant approaches challenging tasks, interacts with and utilizes supportive adults, and uses the cognitive skills that he or she possesses.

In this investigation our goal was to study the contributions that both infant and parent may make to effective coping behaviors on the part of the infant some three months later. To do this, we measured infant, parent, and infant-parent relationship qualities when infants were 12 months old, and then tested how well they predicted general competence when infants were 15 months old. Importantly, we chose to conduct our study on a sample of urban, low-income infants and their mothers, so that our focus on competence is essentially a study of resiliency. Among a group of infants who are at general risk for school difficulties and adjustment problems, what early factors are associated with above-average coping and competence in infancy?

METHOD: Our sample consists of approximately 100 mothers and their year-old infants enrolled in the city WIC (Women, Infant, & Children) Nutritional Supplement Program, run by the County Health Department. These women are primarily of lower-class background, with some variability in marital status, education, family income, and number of children. The sample is probably reasonably representative of the city's disadvantaged population, although it should be noted that these women had enough wherewithal to enroll in the WIC Program and receive its benefits.

Data were collected during the first laboratory visit at 12 months and during a home visit that was conducted when infants were approximately 15 months old. At 12 months, we used a variety of behavioral observations to gain data on three factors that seem especially important for the development of competence: the security of the mother-infant relationship, the quality of maternal care, and characteristics of the infant.

We assessed attachment security using the standard research paradigm, the "strange situation," involving a series of videotaped separations and reunions between parent and infant. Infants were classified into one of four general categories: secure, avoidant, resistant, or disorganized. According to attachment research and theory, the "secure" classification represents a relationship that is optimal for child development. In contrast, the "disorganized" classification represents a relationship that is often found among children who are maltreated and that may undermine a child's development. The "avoidant" and "resistant" categories are also considered to be less optimal for children's development, although not as qualitatively poor as the "disorganized" category. Hence, attachment security can be ordered on a rough continuum from secure, to avoidant or resistant, to disorganized. Quality of caregiving was measured by rating maternal sensitivity to infant needs and cues during a series of four teaching tasks. The single infant characteristic we focused on in this work was temperamental difficultness. We used both maternal ratings of infant difficultness, as well as a measure of how much infants fussed during a free- play session.

Finally, in order to control for cognitive competence at 12 months, we measured the level of infant play during the same free-play session. The proportion of time spent in this more sophisticated play was summed over the 15-minute play period.

We chose to examine competence as a broadly defined concept at 15 months of age. It seemed to us that resiliency in infancy must encompass a wide range of competent behaviors, including not only more narrow definitions of cognitive competence, as defined by standard developmental tests, but also a variety of effective social, self-regulatory, and coping behaviors. For this reason, we combined a number of different measures of infant behavior from the 15-month home visit, including performance on the Bayley

Scales of Infant Development, composite ratings by trained observers of adaptive cognitive and social behaviors during testing, and of coping and self-regulation throughout the home visit, as well as mother's ratings of her infant's motivation and mastery behaviors. These related aspects of functioning have obvious relevance for adaptation and competence within the preschool setting, and reflect progress in mastering stage-salient developmental tasks. Our ability to predict these infant behaviors, therefore, should enhance our understanding of the etiology of competence as infants move into childhood.

A factor analysis on the eleven scores that these various measures provided resulted in two global competence scores. The first was based primarily on the observer ratings and on performance on the Bayley Scales. The second consisted mostly of mothers' ratings. The fact that observer and maternal ratings loaded on separate factors indicates that there was not a lot of overlap between how observers saw the infants and how mothers saw them. The very low correlation between the factor scores (r=.09) indicates this. This was also borne out in different patterns of prediction from the 12-month measures.

RESULTS: As a first step, we ran simple correlations between each child's 12-month measures and his or her two 15-month factor scores. Most correlations were low to insignificant. The reason for this becomes apparent when we consider the group difference data. In many cases, there was no simple linear relation between factors at 12 months and competence at 15 months. The highest level of attachment security or of maternal sensitivity and the lowest level of infant fussing did not usually predict the highest ratings of competence at 15 months. Rather, the infants who looked most competent often had mid-range scores on factors at 12 months. As a result, a number of significant group differences emerged using high, mid-range, and low scores, even though the correlations had suggested few relations between maternal and infant factors and subsequent infant competence.

To examine group differences, we entered the 12-month data in a series of predictive equations that assessed the unique and combined contributions of early functioning to subsequent competence. We did this in a way that showed us how much each factor increased our prediction above and beyond the prediction from all previous factors. In every case, the first variable we used in the equation was the play competence score as an estimate of each child's cognitive sophistication. Small correlations in the expected direction were found for both higher and lower level play, but only with the observer ratings (r=.19 and r=-.23 respectively).

When we examined these correlations for children with different attachment classifications, we discovered why the correlations were so low. Children with disorganized attachments, in particular, had correlations between play and competence ratings that were discrepant from the rest of the sample. Children in the disorganized group whose play was less sophisticated at 12 months were rated by observers as more competent at 15 months (r=.45).

Turning to maternal ratings of competence, we found some discrepancy again, this time primarily within the avoidant attachment group. Children whose play was less sophisticated were rated, this time by mothers, as more competent. However, prediction in maternal ratings was often in an unexpected direction, suggesting that other factors were affecting how mothers rated their infants. The only variable having no correlation with either competence measure was maternal rating of infant difficultness. Perceptions of difficultness did not contribute to the group-difference model either and were excluded from all subsequent analyses.

The group-difference model we chose to test examined contributions of 12-month variables to 15-month competence in a specific order, reflecting the relative theoretical significance of infant characteristics, maternal functioning, and the quality of the infant-parent relationship. According to attachment theory, the quality of infant coping and self-regulation should be a product, first, of the quality of the relationship that has evolved between mother and infant. Infants in a secure relationship are viewed as having gained a sense of trust in the caregiver and of growing self-efficacy when it comes to dealing with both challenges and frustrations. They are also expected to exhibit more pleasure and enthusiasm in social interaction. Infants in an avoidant relationship are viewed as having learned to avoid expressing negative feelings and not to trust others for support and assistance. These infants are expected to deal more competently with the physical rather than the social world. Infants in a resistant relationship are viewed as having developed strong dependency needs and poor self-regulatory skills. They are expected to show above-average levels of distress and frustration as well as more general incompetence. Less is known of infants in a disorganized relationship. In general, however, lacking an organized attachment strategy, these infants should look especially incompetent and problematic across a variety of contexts.

Based on the theoretical significance of the attachment relationship for coping and self-regulatory behaviors, we chose to enter level of attachment security (from secure, to avoidant/resistant, to disorganized) as the first predictor in our equations, after controlling for 12-month cognitive competence. Thus, we asked how much attachment security improved our prediction of later competence from earlier play competence. Both theory and research indicate that the security of attachment evolves, at least in part, from the sensitivity and responsivity of parental care. Thus, we entered maternal sensitivity ratings (grouped as low, medium, or high) as the second predictor.

The third and final predictor was the level of infant fussing. Although data suggest that infant fussiness and difficultness contribute to both the quality of care and the security of attachment, temperamental difficultness may help predict competence independent of their role in caregiving and attachment security. Temperamental variation can demonstrate considerable stability over time and is a clear component of coping, self-regulation, and even motivation.

Analysis of Variance indicates that all 12-month factors included in the model made unique contributions to the prediction of 15-month competence except for attachment security. Competence means for children who scored high, medium, or low on the 12-

month factors fell in the expected direction for play (.68, -.15, and .03, respectively) and attachment(.06, -.04, and -.30, respectively). Interestingly, attachment group is a significant predictor, but only when avoidant and disorganized groups are combined. Children with either of these two attachments scored lowest on 15-month competence. Thus, the issue was not "degree" of insecurity, as we had conceptualized it, but style of insecurity, with competence means ordered from secure to resistant, to avoidant, and, finally, to disorganized. By combining the resistant and avoidant groups, we washed out some of the differences that actually existed.

Children who engaged in relatively more sophisticated play at 12 months were rated as more competent at 15 months ($F=3.30$, $p<.05$). In contrast, children who showed some amount of fussing during play (versus none) ($F=3.32$, $p<.10$) and children whose mothers scored in the mid-range on sensitivity were also rated as more competent at 15 months ($F=4.66$, $p<.05$). The least fussing was observed among the avoidant attachment group of children, who tended to score lower than children in both the secure and resistant groups on competence. Some fussing during the free play is associated with more competence at 15 months. Less fussing at 12 months, but poorer coping in the social context of the home visit at 15 months, are both in keeping with descriptions of infants having avoidant attachment relationships.

DISCUSSION: The tendency of more competent infants to have mothers who looked only moderately sensitive during the 12-month teaching tasks is more difficult to account for. Separate analyses indicated that only mothers having a resistant attachment relationship with their infant looked consistently less sensitive than other mothers. Thus, low sensitivity had some discriminatory power in this sample, but high sensitivity did not. Two notable observations are that the infants with the lowest competence ratings had both insecure attachments and mothers low in sensitivity, and that no infant with a disorganized attachment had a mother who scored high in sensitivity. Insensitivity tells us more about these infants' functioning than does sensitivity.

An interesting aside is the modest negative correlation we found between infant birth order and 15-month competence. Firstborns have an advantage over laterborns on our measures of adaptive and motivated behavior during the home visit. We know from previous research that firstborns receive more individual parental attention than do laterborns and that family size is a protective factor for children's development.

Prediction of maternal ratings of competence proved somewhat different. The reason appeared to be a notable tendency for mothers having an avoidant relationship with their infants to rate them highest on competence. This is apparent on the means for attachment security, particularly when means for avoidant and resistant groups are differentiated. It also contributes to some significant interaction effects we found. The highest maternal ratings were given to infants who had an avoidant attachment and who fussed very little, but who showed only a small amount of higher level play. Interestingly, research on mothers who have avoidant attachments with their infants indicates a tendency on their part to dismiss their infant's dependency needs and to play down negative relationship qualities and other circumstances that might reflect badly on them. Consistent with this is the finding that the infants in the avoidant group who were described by their mothers as least difficult scored worse than any other infants on observed 15-month competence.

The group difference data suggest a number of possibilities to examine further in our efforts to understand the development of competence among infants who are at socioeconomic risk. Evaluation of early adaptation and competence should not rely solely on maternal report. The data we are presenting today, as well as data on adult attachment models, suggest systematic biases in the perceptions of mothers with insecure attachment relationships to their infants and/or insecure adult working models of attachment. This could explain why maternal ratings of difficultness did not contribute in any meaningful way to the prediction of competence. In the future, more efforts to use trained observers and to seek out teacher or day care providers for their more objective ratings will probably result in more accurate data and conclusions.

Methodological considerations aside, the data also point to the role of multiple factors that help set infants at socioeconomic risk on the path to childhood competence. A measure of cognitive competence as applied and pragmatic as infant free-play behavior can help to distinguish those infants who will appear more effective in approaching challenging tasks, interacting with and utilizing supportive adults, and using the cognitive and social skills that they possess. Play competence alone is noticeably less powerful than in combination with maternal and infant factors in helping to identify infants at risk who appear to be starting out on a developmental trajectory toward adaptation and competence.

Attachment issues may or may not be at the heart of the differences found in infant fussing and maternal sensitivity. Differences suggest, however, that infants who are most vulnerable are those who have avoidant or disorganized attachment relationships, especially in combination with a mother who is observably insensitive in her interactions with the infant. An absence of negative affect during the free-play period in this sample was also predictive of lower competence.

In conjunction with other research on resiliency among children at risk, our data suggest that a critical protective factor in early development is the formation of a secure attachment relationship and positive interactions between the infant and at least one caregiver. The fussier infant who is in a secure relationship and/or is cared for in a sensitive manner may, in fact, possess greater competence than the infant who rarely fusses but shows evidence of an avoidant attachment and/or is dealt with in a style that ignores his or her cues and signals. The special status of being firstborn probably derives as well from the extra individual attention given, at least during infancy. As more and more children are cared for by the same parent or caregiver, however, the protective

status of being firstborn is probably much reduced. Thus, children have been found to show greater resiliency in smaller families, and caregivers in a variety of settings appear more sensitive when child group size is small.

There are two important caveats. First, the associations and group differences we found are statistically reliable, but not necessarily substantial in all cases. The meaning of many of the findings depended upon knowing about other variables. If there is anything we have concluded from risk research, and from resiliency research, it is that risk and protection from risk are cumulative phenomena. To walk away with the conclusion that all secure attachments result in competence, or that all insensitive caregivers have incompetent infants, or that all infants with "easy" temperaments automatically form either secure or avoidant attachments is a fallacy. The research we are conducting is an effort to begin to prove beyond such single effect models. I assure you that the more carefully we plumb our data, the more qualifications it will be necessary to add.

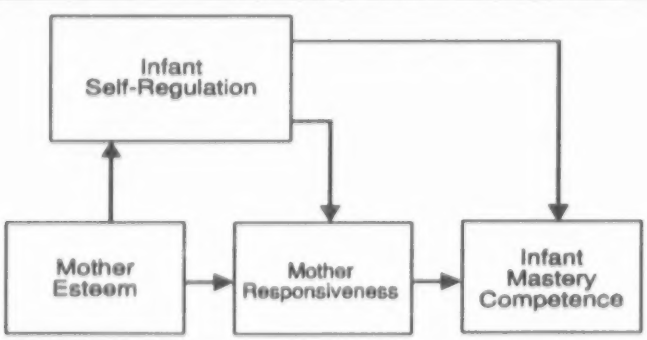
A second caveat is that the data capture just a moment in time, the first months of the second year of life. Obviously, not only will these infants change over time, but their relationships and their care will evidence change. The longitudinal research of Byron Egeland and Alan Sroufe has demonstrated convincingly that as family support and stress change, parents and parent-child relationships change. Thus, the competent infant today may well not prove the competent child a few years from now. The research that has been done on protective factors in development indicates that resiliency evolves not from short-lived inoculation effects, but from long-term circumstances that work to maintain a positive developmental trajectory. Stability of good care, stability of secure relationships, and/or stability of competencies and attractive qualities in the child have thus far proven the best predictors of resiliency across childhood. Consequently, the adults who matter most are likely to be those who spend not one month, not nine or even twelve months, but several years with a child, whether as angry and overtaxed disciplinarians, indifferent bystanders, or supportive advocates. Our efforts to intervene in the family, in the community, and in the schools should reflect this.

Patterns of Influence on Infant mastery Play in Risk Groups: Implications for Assessment and Intervention *Elizabeth J. Hrncir*

The following review reflects the evolution of our studies on infant mastery and competence in risk and non-risk samples during the second year of life. Special attention is given to the influence of infant and mother affective variables on infant mastery and competence.

The theoretical postulates of Robert White (1959) have guided our empirical work on infant mastery and competence. White proposed that "the [infant's] urge toward competence is inferred specifically from behaviors that show a lasting focalization and that have the characteristics of exploration and experimentation, a kind of variation within the focus" (White, 1959). Assessment of infant play is a promising approach for capturing the essence of White's notions because this type of measurement taps both the spontaneity and persistence of infants' behaviors. Assessment of infant play has allowed us to address important issues regarding development during the second year of life. We have been concerned with variability in infants' propensity to display their optimal abilities and have questioned whether or not all of the variance in the competence of normally developing infants is due to innate cognitive abilities. In particular, we have been interested in the shared variance among motivation, competence, and other important influences on infant development during the second year of life (e.g., Messer et al., 1986). In addition, we have addressed the ways in which the affective climate of the caregiving environment influences infant mastery and competence (e.g., Yarrow et al., 1984). We have questioned whether the patterns of influence on infant mastery and competence may vary with transformations in development. Finally, we have been concerned with the ways in which the patterns of influence on infant mastery and competence may vary for infants at risk and with special needs (e.g., Blasco, Hrncir, & Blasco, 1990) (see figure 1).

Figure 1. MODEL OF PATTERNS OF INFLUENCE ON INFANT MASTERY COMPETENCE



In our studies these issues have been addressed using both traditional measures of infant competence (i.e., Bayley Scales of Infant Mental Development, Bayley, 1969) and alternative measures of infant maturity (i.e., Belsky and Most Playscale, 1981). Our initial studies of infants' mastery and competence were concerned with the variance in infants' propensity to display their optimal abilities on the Belsky and Most playscale. In our first study we focused on the discrepancy between infants' typical and optimal demonstration of abilities (Belsky, Garduque, and Hrncir, 1984). In our second study we contrasted this measurement of elicited play, or executive capacity, with measurement of spontaneous play, or spontaneous mastery (Hrncir, Speller, & West, 1985). Unlike the executive capacity measure, the spontaneous mastery measure was stable from 12 to 18 months and was also related to the Bayley MDI at both ages (Hrncir et al., 1985). The findings of this second study suggest that the measure of spontaneous mastery in infant play might provide an alternative assessment tool for non-risk and risk infants.

The spontaneous mastery assessment differs from traditional infant assessment procedures (Bayley Scales of Infant Development) in significant ways. First, the spontaneous mastery assessment captures not only infants' developmental level but also their propensity to demonstrate their optimal abilities on the Belsky and Most playscale. Second, infants' behaviors are not elicited by the adult. In the spontaneous mastery paradigm infants self-select the objects they play with. They also decide on the length of time they play with the objects in the play set. This is in contrast to administration of the Bayley scales. In the typical administration of the Bayley scales the adult encourages the child to sit still, attend, cooperate, and persist until the task is completed.

The "variation within the focus" (White, 1959) of infants' behaviors is tapped when the instrument is not tied to adult elicitation strategies. In other words, the very nature of adult elicitation strategies in traditional assessment procedures may eliminate a source of variance in infants' tendencies to show their most advanced skills (Belsky, Garduque, and Hrncir, 1984). Variability in infants' motivation to perform, however, is not eliminated in the spontaneous mastery assessment paradigm. The very structure of the spontaneous mastery assessment, then, provides a window for the study of individual differences in infants' motivation to demonstrate their optimal abilities.

After our initial measurement studies with non-risk infants, we extended our work of mastery and competence to infants with special needs in a study of 18-month-old infants with cerebral palsy and their mothers (Blasco, Hrncir, and Blasco, 1990). In this study mothers' responsivity in interactive play with their infants was assessed using the Parent/Caregiver Involvement Scale (PCIS) (Farran, Kasari, Comfort, & Jay, 1986). In a sample of 30 18-month-old infants with cerebral palsy and 31 normally developing 18-month-old infants, mothers did not differ in the quality and appropriateness of interaction with their infants. Mothers' responsiveness scores contributed significantly to both infant mastery (i.e., spontaneous mastery) and competence (i.e., Bayley scales), regardless of risk status.

Mothers in both the non-risk sample and the sample with cerebral palsy adapted their behaviors to match their infant's developmental needs. In both the non-risk and risk sample the mothers' behaviors, as measured by the PCIS, contributed to their infants' spontaneous mastery and level of competence. In contrast to other research (e.g., Kogan et al., 1974; Wasserman et al., 1985) suggesting that mothers of infants with special needs are more controlling in their interactions, the findings of this research imply that these mothers' behaviors may serve an adaptive purpose. Many mothers in this sample of infants with cerebral palsy were able to successfully read their infants' cues despite their motor impairments. These findings led us to expand the model to include other contributors to mastery and competence of non-risk infants.

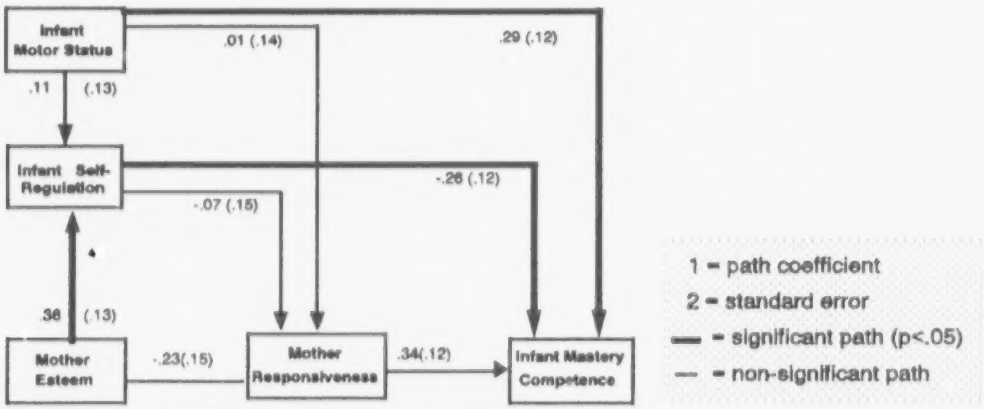
We examined the patterns of relationships in our model with 51 non-risk 12-month-old infants and their mothers. The families were generally middle to upper socio-economic status, well educated, and mostly white. Using path analytic techniques (i.e., LISREL; Joreskog & Sorbom, 1984) we examined the patterns of influence of infant motor status, infant self-regulation, mother esteem, and mother responsiveness to infant mastery competence (Castaldi, Hrncir, and Caldwell, 1990; 1991) (see figure 2).

In our model the path coefficient between mother responsiveness and infant mastery was significant. As in the Blasco et al. study (1990), mothers' ability to read and respond accurately to their infants' cognitive and emotional needs contributed to their infants' mastery of the inanimate environment (e.g., Tronick & Gianino, 1986; Tronick, Cohn, & Shea, 1986).

In addition, our path analytic model allowed us to examine other patterns of influence beyond those examined in earlier work. The pattern of significant paths in our model supports the view that infant self-regulating capacity is a mediating variable in the path leading from maternal esteem to infant mastery (see figure 2). Future studies will address the extent to which variation in maternal regulation of esteem may alter the infant's self-regulating capacity, thereby indirectly influencing infant mastery. Studies of depressed mothers of infants support the possibility that the emotional unavailability of the attachment figure may have both a direct and indirect influence on infant mastery and competence (e.g., Cohn, Campbell, Matias, & Hopkins, 1990; Cytryn, McKnew, Zahn-Waxler, Radke-Yarrow, Gaensbauer, Harmon, & Lamour, 1984; Gianino & Tronick, 1988; Sorce & Emde, 1981).

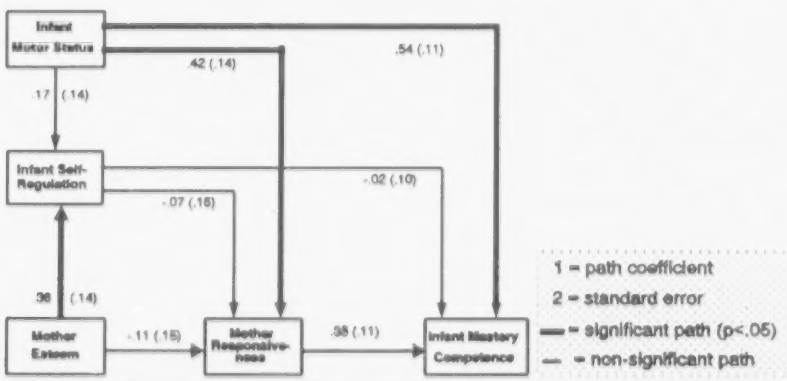
In our non-risk sample of well-educated families we found significant patterns of influence on infant mastery at 12 months of age. Given the typical expectation of a fairly homogeneous environment for non-risk samples during infancy, our significant path coefficients are striking. In summary, the findings of this study suggested that variation in the affective climate experienced by non-risk infants both directly and indirectly influences their own mastery of the inanimate world.

Figure 2. NON-RISK INFANTS AT 12 MONTHS OF AGE



These findings led to our next study. We extended our path analytic model to a sample of infants with cerebral palsy (Sarmiento-Ostrenko, Hrncir, and Caldwell, 1991). Path analyses were conducted to contrast the patterns of influence in a sample of 41 18-month-old infants with cerebral palsy and their mothers and the sample of 51 non-risk infants and their mothers assessed on the same measures at both 12 and 18 months. You will recall the role of mother esteem and mother responsiveness in our model for non-risk infants at 12 months of age (see figure 2). Note the similarities between the model for 18-month-olds with cerebral palsy (see figure 3) and the model for the 12- month non-risk group (see figure 2). The path coefficients for mother esteem and mother responsiveness are significant for both groups, and their magnitude is also similar. By 18 months, however, the path coefficient for maternal esteem is no longer significant in the model for the non-risk group. The path coefficient for mother responsiveness, a measure of both cognitive and emotional dimensions of maternal behaviors, remains significant in this model for these infants at their 18-month anniversary or 6 months later. While the role of the mother's emotional resources (e.g., her feelings about herself and her parenting capabilities) appears to shift by 18 months for infants who are developing normally, this shift is not represented at 18 months in our model for infants with cerebral palsy. These findings suggest that infants with cerebral palsy may require a level of their mothers' emotional availability similar to what their non-risk counterparts required at 12 months.

Figure 3. INFANTS WITH CEREBRAL PALSY AT 18 MONTHS OF AGE



These preliminary findings led us to question the extent of the demands placed on maternal emotional resources by infants with disabilities. From the perspective of our model, the mothers of infants with disabilities may be required to sustain a prolonged level of emotional availability beyond the normal developmental timetable. Over time, the intensity and duration of caregiving may deplete maternal resources, jeopardizing maternal mental health and the availability of resources for later developmental periods in

the child's life. Intervention targeted toward buttressing the emotional resources of mothers may be the most promising for sustained and optimal functioning of infants and toddlers with disabilities.

Implications of our research are as follows. First, our research program, to date, documents the potential of using alternative assessment strategies for measuring infant mastery and competence. Indeed, alternative strategies may illuminate infants' competencies that are otherwise obscured by the impairments associated with risk status. Second, our findings show the usefulness of assessment of the parent-infant dyad for capturing both the emotional and cognitive appropriateness of parent behavior for enhancing infant mastery and competence. Indeed, from the perspective of our model, intervention aimed at maternal emotional resources and capabilities would appear most promising for infant outcome in risk samples. Third, our model provides a systemic approach to the patterns of relationships that may shape the infant and dyad over time. An understanding of the impact of individual differences and systemic stress on the infant-parent dyad can help match appropriate services to the differential and changing needs of the family system.

Our work has only just begun. In our charge to serve infants and toddlers with disabilities under PL 101-476 we must continue to refine our assessment strategies so that they are sensitive to tapping the optimal capabilities of infants and their families. And we must use our limited resources to target intervention to those aspects of the system that are malleable and that are critical to the enhanced development of infants and toddlers with disabilities.

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Early Intervention and Long-Term Predictors of School Status *Craig T. Ramey, Frances A. Campbell, Donna M. Bryant, Margaret Burchinal, J.J. Sparling, Barbara H. Wasik*

Impoverished family environments are strongly implicated in the etiology of intellectual subnormality and school failure. Children from poor families are more likely than are more advantaged children to be labelled mentally retarded and placed in special education classes in the early elementary grades, even when no neuropathology can be identified. They are also more likely to be retained in grade once or more and to drop out of school without graduating from high school. To improve the academic and life-chance odds for high-risk children, early educational programs, including Head Start, have been implemented during the preschool years. The hope has been that strengthening cognitive and social readiness can prevent early academic failure and establish patterns of academic accomplishment that will endure. A long-term follow-up of 11 early education programs by Lazar, Darlington, Murray, Royce, & Snipper (1982), typically with 3- and 4-year-olds, found that while IQ gains were demonstrated in educationally treated children compared to untreated controls, such differences were usually not detectable by the time children had been in public school for three to four years. Moreover, better academic performance by treated children as measured by school grades or standardized test scores was usually not found after sixth grade. Treated children did, however, have fewer placements in special education

classes and fewer instances of retention in grade, and there were positive effects on their attitudes toward school as well. The mechanisms by which these lasting effects were obtained are unclear.

Because the predicted long-lasting IQ and academic achievement effects of early intervention beginning at 3 or 4 years old were not initially obtained, some researchers hypothesized that beginning intervention at age 3 or 4 might not be early enough. Partly based on Hunt's and Bloom's work and on neurobiological models of early experience developed by Hebb (1949), we began a prospective, longitudinal experimental study to test the degree to which intensive early educational intervention begun in infancy could alter the trajectory of intellectual development and prevent academic failure in children from high-risk families. We also wanted to determine whether early intervention required a systematic primary grade follow-through program in order to be maximally effective. Known as the Carolina Abecedarian Project, the multi-disciplinary research involved investigators from developmental psychology, pediatrics, education, psychiatry, and psycholinguistics.

METHOD: The design of the preschool study called for two initially equivalent groups of children. Because children were assigned to groups at birth, families were equated on the basis of demographic factors, then randomly placed either in the educational day care Experimental group (E) or the preschool Control group (C). Four cohorts of approximately 27 children each were enrolled between 1972 and 1977.

Before entry to public school kindergarten, the preschool Experimental and Control groups were re-randomized by equating pairs of children within groups on the basis of their Stanford-Binet IQ at 48 months, then assigning one member of each pair to the school-age intervention group and the other to the school-age control group. Thus, half of the preschool experimental and control groups received the school-age intervention program. The resulting four-cell design permitted a comparison of outcomes in children who had a total of eight years of intervention (five in preschool and three in early elementary school (EE)), five years of intervention in preschool only (EC), three years of school-age intervention only (CE), and no educational intervention at all (CC). One of the key methodological features of the Abecedarian Project was the random assignment of children to treatment and control groups, establishing, within the limits of sampling theory, the initial equivalence of groups.

Prenatal clinics and social service agencies were screened to identify families who appeared likely to qualify for the study. Families were then visited by a member of the Child Development Center staff who explained the project and explored the family's interest in enrolling. A final determination of eligibility was made using a High-Risk Index (Ramey & Smith, 1977) after the mother visited the center, where she was interviewed and administered an intelligence test.

All children in the sample were full-term infants free from conditions known to have genetic or infectious links to mental retardation, but all were from homes with low levels of parental income and education, and other indications of problems. One hundred twenty-two families were invited to participate in the study; 109 families, to whom 111 children were born during recruitment, were enrolled, accepted their random group assignments, and took part. By the beginning of the elementary school phase, attrition had reduced this number to 96 children. Of these, 90 had IQ data collected at the end of three years in public school and 88 had scholastic achievement test data. Follow-up data were obtained for 90 subjects at the age of 12. The mothers in this study tended to be young, to have less than a high school education, and to be single parents. Maternal ages ranged between 13 and 43; approximately one-third of the mothers were 17 years old or younger when their children were born. Maternal IQs ranged from 49 to 124, with the mean falling at approximately 85 in both groups. Race was not a factor considered at enrollment, but the demographic realities of the university town where the study was conducted led to a virtually all-Black sample (98%).

Infants in the preschool Intervention group could begin attending the center as young as 6 weeks of age; the mean age at entry was 8.8 weeks. The infant nursery accommodated 14 babies and was staffed by four caregivers. Curriculum materials to enhance cognitive, language, perceptual-motor, and social development were devised by Sparling and Lewis (1981) for use in this program. Activities were chosen for children based on the curriculum developers' and teachers' assessments of the child's needs, and changed as the infants and toddlers appeared ready for new developmental challenges. These activities were fit into each child's daily schedule as natural events while infants and toddlers paced themselves through the day. The day included plenty of time for naps, snacks, and unstructured play, as well as for planned developmental activities.

The preschool program became increasingly structured as children grew older. The classrooms for 3- and 4-year-olds resembled other high quality preschool programs, with centers for housekeeping, blocks, water play, books, art, and quiet corners for one-to-one reading, teaching, or solitude. Because a number of theorists have held that deficits (Blank, 1973; Tough, 1976) or differences (Labov, 1970; Heath, 1983) in the early language environments of disadvantaged children fail to prepare them for success in mainstream public schools, a special emphasis was put on language development in the Abecedarian Project. Teachers were extensively trained to make sure their verbal exchanges with the children were predominantly of the "informing"/"eliciting" type, rather than being orders and directives given by the adults to the children (McGuiness & Ramey, 1981).

The rationale for the school-age intervention was that high-risk children would likely benefit from increased tutoring in two key academic subjects: reading and mathematics. It was also expected that the children's progress would be enhanced by having their parents become more directly involved in their education. The intervention model was that of having the parents of treated children regularly engage in supplemental educational activities at home. These supplemental activities were custom-designed for each child by Home/School Resource Teachers after consultation with the child's regular classroom teacher. The resource teacher

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then took the activities to the home and demonstrated their use to the parent and discussed how they fit into the child's educational plan. These teachers generally had graduate degrees in special education, and thus were qualified to act as consultants to classroom teachers when problems arose. In addition to their role as liaison between the high-risk family and the school system, the home/school teachers helped families to cope with such pressing family issues as employment and securing decent and affordable housing. In a typical year, more than 60 different learning activities were devised and provided for each child. Parents estimated that they averaged approximately 15 minutes a day tutoring their children. Response to the program varied from family to family, but parents were generally enthusiastic about the program and evaluated it very positively in interviews. Almost all would have elected to continue with the program in later school years had it been available.

RESULTS: Because the central question being addressed during the preschool phase of the Abecedarian research was that of the malleability of early intellectual development, the children's performance on standardized IQ tests provided the primary outcome measure for assessing its effectiveness. Treated children significantly outperformed the control children at every testing occasion after the infancy period through the preschool endpoint. At that time (54 months), the McCarthy Scales of Children's Abilities (McCarthy, 1969) were used to measure the children's cognitive development, and the results showed that in the experimental group the children's mean General Cognitive Index score of 101 was 10 points higher than that of the control group children's mean score of 91 points (+=4.00, $p<.001$) Moreover, by the age of 4 years, children in the control group were six times more likely to score within the mildly retarded range (IQ < 70) than were children in the experimental group (Ramey & Campbell, 1984). The investigators made strong efforts to assure that the experimental group children were not "taught the tests" upon which these outcomes were based. All preschool tests were administered by persons not otherwise involved in the planning or delivery of the intervention program, and the young children were tested with their parents present, not their teachers.

As already noted, the conventional wisdom has been that early intellectual gains generally fail to hold up once high-risk children leave intervention programs and enter public school (e.g., Lazar, et al., 1982). This has not been the case for the early IQ advantage found for treated subjects in the Abecedarian study. At age 8, when all intervention ceased, children who had preschool intervention still outperformed the preschool controls on the Verbal IQ score of the Wechsler Intelligence Scale for Children-Revised (1974). Analysis of variance showed this difference to be related to the children's preschool group assignments, ($F(1, 86) = 3.93$, $p<.051$), not the school-age program. The Full Scale IQ differences related to preschool group approached statistical significance as well ($F(1, 86) = 3.19$, $p<.08$). There were no group differences on the Performance IQ, and no effects related to school-age group assignment. Abecedarian investigators were particularly eager to see whether the IQ advantage for treated subjects held up through age 12. Although there was some decline in mean scores in all groups, the IQ advantage not only held up, but actually attained a higher level of statistical significance than was found at age 8. As was true earlier, the IQ differences at 12 were associated with the preschool, rather than the school-age, treatment program. There was a significant effect attributable to Preschool Group assignment on the Full Scale IQ, ($F(1, 41) = 5.80$, $p<.03$) and for the Verbal IQ ($F(1, 86) = 7.73$, $p<.007$). There were no group differences in the Performance IQ, and, again, no group differences associated with the school-age treatment.

As to the efficacy of the early educational program as a preventive measure against mild retardation, the Abecedarian results through age 12 indicate a positive effect. At age 12, no child in the E group earned an IQ score of 70 or below; three children in the preschool C group did so. Extending the question to 12-year-olds who scored in the Borderline range or lower (IQ below 85), versus Low Normal or higher (IQ 86 upwards), a chi-square analysis showed that the probability of scoring in the Borderline range was significantly greater for children in the preschool C group, chi-square (1) = 12.05, $p<.0001$. Preschool control children at age 12 were 3.5 times more likely to score at or below the borderline range than were the Abecedarian children who received the preschool educational intervention.

Scores on standardized intelligence tests are primarily of interest insofar as they are related to academic outcomes. Scholastic success of the Abecedarian subjects was measured at both age 8 and age 12, when children had completed three years and seven years in public school. Achievement in two basic subjects, reading and mathematics, was considered most important at age 8. At age 12, achievement across the full range of subjects covered by the Woodcock-Johnson Pyschoeducational Battery, Part 2: Tests of Achievement (WJ; Woodcock & Johnson, 1977) was measured. In order to examine the academic outcomes at age 8 while holding length of exposure to school constant, but also in a way that allowed all children to experience the full curriculum covered in kindergarten, first, and second grades, the academic data for the treatment endpoint were taken from two sources. First, a standardized achievement measure, the Woodcock-Johnson Psychoeducational Battery was administered to all children at the end of three years in school and its Age-Referenced Standard Scores for Reading and Mathematics were compared across treatment groups. Second, when children completed the second grade, the school had teachers administer the California Achievement Test (CAT; 1978) to all pupils. From this instrument, grade-referenced scores for achievement in reading and mathematics could be derived.

Comparing academic outcomes after three years in public school for the Abecedarian subjects with those for a randomly selected local population comparison group showed that high-risk children scored well below the average levels attained by the comparison group in reading and mathematics, who tended to score well above the national average. A similar finding emerged when the 12-year olds were compared with randomly selected local peers. Academic outcomes were initially tested with multivariate

analysis of variance using a Time (Linear trend) x 2 (preschool group) x 2 (school-age group) model combing the four sets of scores. The multivariate test showed a significant linear trend across groups for the grand mean of the four sets of standard scores ($F(4, 76) = 3.32$, $p<.02$), and a significant multivariate effect for preschool treatment, ($F(4, 76) = 3.62$, $p<.01$), but no statistically significant effect for school-age treatment.

Each set of 8-year-old scores was then examined separately. All four sets of academic measures showed a trend for the means to increase as a linear function of the number of years of intervention, and three of the four sets of scores showed significant effects for preschool intervention. Mathematics achievement after three years in school was the exception, suggesting that exposure to the math concepts taught in the higher grade made more difference for this subject than for reading. Only one of the four sets of scores, the CAT second grade score for reading, showed a marginally significant effect attributable to school-age intervention ($p=.06$). Positive effects of early intervention on academic outcomes were still apparent at age 12 after the high-risk subjects had been in public school seven years, and four years after intervention ceased for children having school-age treatment. When the linear trend across groups was tested for reading, mathematics, written language, and knowledge scores at the age of seven years in public school, a significant linear trend showing an increase in mean scores as years of intervention increased was found ($p <.05$) for reading, written language, and knowledge. The trend for mathematics was similar, but did not attain the .05 level ($p=.076$). These data contrast with those reported by the Consortium for Longitudinal Studies, which found the effects of early intervention on achievement in reading and mathematics to have eroded by the sixth grade (Lazar, et al., 1982).

Data on the percentage of children retained, by group, at the end of seven years in school was consistent with the outcome reported by Lazar et al. (1982). The Carolina Abecedarian Project results showed that preschool treated children had fewer retentions in grade. In this instance, the likelihood of retention for Abecedarian subjects was reduced by preschool intervention (chi-square(1) = 791, $p=.0049$), but not by school-age intervention. More than half the untreated preschool controls, regardless of school-age treatment status, had been retained by the time they had been in school seven years. In contrast, approximately one fourth of the children with preschool intervention were retained during the same time period. This figure is similar to the 25% average figure for retention among treated children reported by the Consortium (Lazar et al., 1982).

It is worth noting, however, that while retention in grade is a valid indication of scholastic difficulties, it is not a perfect index for good adaptation to school or satisfactory academic progress. In monitoring the Abecedarian children's school progress across seven years, it developed that some who repeated were later moved up and placed back on grade level. Children who moved from one system to another were likely to be placed in age-appropriate classes in the new setting regardless of prior retention decisions in other schools. Moreover, a few children who fell behind academically were never retained because of other considerations, such as large physical size or placement in resource programs.

DISCUSSION: The present study demonstrates that one of the best predictors of academic success among economically disadvantaged children is access to a high quality preschool educational program. It is acknowledged that the very intensive, long-term preschool program provided children in the Abecedarian study was expensive, but these results are important in that they demonstrate that intellectual development does appear to be somewhat malleable if intensive intervention efforts are begun early. Moreover, the positive effects on child IQ found here have held up longer than most previously reported. The IQ advantage of children having preschool treatment was matched by positive effects on scholastic achievement through the first seven years in school.

The implications for Head Start are these: long-term early educational intervention (from infancy to age 5) produced gains in IQ that endured through age 12. More importantly, even modest changes in IQ were associated with improved scholastic performance in disadvantaged children. These outcomes were the result of an intensive, specifically focused early childhood program beginning in infancy and lasting five full years. In contrast, Head Start typically begins later in the life span and lasts for two years. The same magnitude or duration of effects might not be found in Head Start, but the Abecedarian results do affirm Head Start's preschool focus.

Taken together with results from other, similar experiments with disadvantaged children, the Abecedarian results suggest that for maximum effectiveness, intervention targeting children's intellectual levels should begin very early in the life span. Intensive intervention in the form of a supplemental home curriculum in early elementary school tended to boost scholastic achievement, as shown by the persistence of the significant linear trend across the treated groups in standardized scores for reading. It had no detectable effects on intellectual test scores, however, and a less powerful effect than preschool intervention on school performance. Again, as with the IQ results, the academic outcomes on this study affirm the importance of intervention before school entry.

The higher levels of cognitive skill demonstrated by children having preschool intervention seems the most likely explanation for their improved scholastic achievement. This was implied by the outcomes at age 8, and was even more apparent at age 12, when the mean levels of achievement for children who had preschool treatment only were as high as were those for children who had treatment in both the preschool and elementary school phases. If the differences in academic accomplishment were attributable primarily to the supplemental curriculum provided in the school-age program, the CE children should have done as well in reading and mathematics as those in the EE group, for both had the benefit of school-age intervention for all three years. This was not the case.

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Discussion *James Egan*

I am a child psychiatrist. I began an intervention project with mothers who were high risk while they were still in the hospital -- back in 1969 when we still allowed mothers to remain in the hospital for a couple of days following delivery. In my judgment, too heavy an emphasis has been placed on cognitive IQ measures. I'll quote Howard Hunt, the psychologist, who said, "We tend, in science, to look where the light is brightest, not necessarily where we dropped the nickel." We measure what's measurable, not necessarily what is most relevant. In my judgment, we may have overemphasized reliability at the risk of validity. One of the things that we have learned from Harry Harlow -- originally -- is that there was almost no degree of impairment that he could cause monkeys that would lead to a real deterioration in their cognitive functioning. He could easily cause social cripples, but to produce cognitive impairment required an extraordinary effort. I think that this is true for humans as well. Yes, we do produce cognitive impairments with adverse conditions, but the social impairments, the psychological impairments, are even greater.

Archer and Paige, in a wonderful review of predictive capacities, suggest that at age 4 probably the best single predictor of adult development above IQ and even social class, would be peer relationship ratings by other 4-year-olds -- once again giving us strong data of a predictor that was not heavily IQ-dependent. I will try to build a case. As we saw from Ramey's scale, there was some difference between the group that had no intervention and a diminished IQ and those who had the full panoply of services. And when he showed us the very next slide, the measures of skills, the gaps were even more dramatic. This is absolutely in keeping with what we all know just from reading The New York Times or The Washington Post on any given weekend -- that combined scores broken down by ethnicity, by grade across the country -- kindergarten, first grade, second grade, 12th grade -- that what you find is precious little discrepancy at the kindergarten level. There is some, but it is relatively modest, and as you go up the academic year, year by year, that gap widens. Therefore, to account for that on the basis of cognitive capacities clearly is spurious, since the cognitive capacities are not undergoing transformations between kindergarten and the 12th grade. The critical variable is something other than IQ. Certainly IQ is important, but there is something else, which brings me to two final observations and a recommendation. I would remind us all of the pioneering work of Sheppard Kellam, who is now at the School of Public Health at Johns Hopkins. When he was at the Woodlawn section in Chicago, he and another half-time psychiatrist raised the reading and math scores two years for the entire school system over the course of three or four years. A rather dramatic, hefty increase. The bottom line was the inclusion of the parents into the day-to-day operation of the school.

We make a mistake, it seems to me, in our narcissistic zeal to do good, by taking on the total process of curing and fixing and healing, and then returning the child back home, only to be surprised and astounded that our gains don't hold. We have done this in psychiatry for so long that it's really a tiresome story: the disruptive adolescents come in; we hospitalize them; we get them functioning perfectly well in our environment, after three weeks, six weeks, six months -- whatever it takes. Then we send them home, and then they come back in.

We have learned that if we are going to make gains, we have to do it by involving the parents as co-therapists -- while the child is in the hospital -- by helping the parents to shift their daily behaviors to re-establish, re-affirm, and maintain what we do. Having said that, I think the horizon for our early work is a more intensive effort to recruit the parents into the day-to-day operations, help them internalize an ego ideal of academic success for themselves and their families, and diminish the separation between them and the caregivers, which is fertile ground for the development of We versus Them. There is a certain mindset at home that has a malignant outcome in things such as young Black inner-city boys who feel that to be academically superior is to act white, and that white men are sort of honkies and sort of not so straight, and you don't want to be like them. If we shifted that ego ideal -- to use my jargon -- early on by incorporating them into our mission, I think we would sustain the gains that have been so dramatically shown here and prevent what is really the big problem of a gradual decline over time.

AUDIENCE DISCUSSION

The extent to which increased performance is due to changes in IQ or other factors was debated. It was pointed out that there are no experimental designs which allow for an examination of intelligence in isolation because it exists in the context of social experience. This led to a reiteration of the importance of parental involvement in early intervention rather than an exclusive focus on the child. At the same time, it was mentioned that parents can not always be involved and that some things can still be done to help children in the absence of parental involvement.

Trade-offs between construct validity and reliability in measures for at-risk children were recognized. The use of standard measures that are reliable and correlated with outcomes of interest was supported based on the assumption that there is continuity and isomorphism in the relationship of variables. This led to a consideration of whether early interventions would be effective with non-at-risk samples. In response, the point was made that the relationship among the variables might be the same, but compensatory experiences may not substantially boost performance for already high functioning children. Interventions aimed at other domains such as attachment, however, might be effective for non-risk samples.

A discussion of caregiver-focused interventions followed. Although these were considered promising, it was also noted that there are larger social contexts that affect children which need to be addressed if interventions are to be truly effective.

Panel 113 LOCAL HEAD START EVALUATIONS

Chair: **Dennis Deloria;** *Discussant:* **David Weikart**

Screening Head Start Children on a Large Multi-Ethnic Urban Population *Daryl Greenfield, Susan Gold*

This paper describes and evaluates a multi-pronged screening effort directed at a large, multi-ethnic urban population of over 6,000 preschool children receiving Head Start services.This effort is directed at developing a cost-effective case management system for the identification of Head Start children with special needs. The system involves coordination of efforts among the Dade County Head Start program, the University of Miami, and the Florida Diagnostic Learning and Resources System/South, which is a special education support system of the Dade County Public School System. Dade County Head Start provides comprehensive child development services to enrolled children throughout Dade County. There are presently 46 program sites concentrated in disadvantaged neighborhoods that serve rural as well as urban areas.

As the nation moves through the 1990's into the 21st century, the major metropolitan areas are becoming increasingly more ethnically diverse. In an analysis of the nation's 50 largest metropolitan areas The Miami Herald (Miami Herald rsearch department, using 1980 and 1990 census data, April 1991) found the largest increase in the Hispanic population (59% versus 12% overall). Four metropolitan areas (Miami, New York, Los Angeles, and San Antonio) no longer have non-Latin white majorities. In 31 of these metropolitan areas, the number of Hispanics increased more than the number of Blacks. The population in Dade County is 42% Latin and 18% Black. Additionally, we continue to experience continual waves of immigration from Haiti, Nicaragua, and other Central and South American countries. Children and families served by Dade County Head Start reflect the cultural diversity of both the county and the nation as a whole. The number of children served in the last three school years is increasing, with this increase occurring largely in the Hispanic group. Dade County provides an ideal site for the study of such ethnic differences, given the large numbers of Black, Hispanic, and Haitian children being served.

The present project is a collaborative effort among three local agencies -- Dade County Head Start, the University of Miami's Mailman Center for Child Development, and the Dade County Public School System. Dade County Head Start has been providing services to low income children and their families for 25 years. It is organized as a single, centrally administered program operating under the umbrella of the Community Action Agency. All classrooms have a maximum of 20 children with 2 adults, a teacher and a teacher assistant. Centers vary in size, with some having only one classroom of 20 children, some having several classrooms, and one center having 28 classrooms and 560 children. The Florida Diagnostic and Learning Resources System/South (FDLRS/South) operates through Dade County Public Schools, Exceptional Student Education. It is a special education support system for educators and professionals who work with exceptional children. FDLRS/South serves Dade and Monroe counties, and is part of a statewide network of 18 Associate Centers, coordinated through the Bureau of Education for Exceptional Students (BEES) of the State Department of Education. The FDLRS network was established in 1975 as Florida's response to P.L. 94-142.

There are also five specialized university FDLRS centers that are part of this FDLRS network. In South Florida, the Mailman Center for Child Development houses the FDLRS/Mailman project. It is a comprehensive research, training, and service facility addressing the needs of children. One of the programs of the Mailman Center is to provide evaluation services for Head Start children. In 1988, a model for Head Start screening was developed that relied upon a multi-pronged approach involving interagency cooperation. One logistic problem in such an interagency approach involves the integration and coordination of information gathered at multiple sites. A computerized case-management system was developed at the Mailman Center to solve this logistical problem. This computerized system draws together data collected by Dade County Head Start, the joint FDLRS/South-FDLRS/Mailman

preschool screening team, and the Mailman Center Head Start team. These data are linked through the use of a state-of-the-art multi-user relational database management system, housed at the Mailman Center.

METHOD: Data entered into the computerized case management system involves activities from three sources. The first source is a preschool screening team, established in 1984 as a cooperative agreement between FDLRS/Mailman and FDLRS/South. The function of the team is to screen preschool children for eligibility for exceptional student education. It is the first step in the process of multi-disciplinary diagnosis and evaluation.Components are vision, hearing, speech, and language. Each year between 7,500 and 8,200 3- and 4-year-old children are screened. Approximately 10% of the children need follow-up attention of some kind. Head Start children are screened at the beginning of the school year. The second component of this effort involves the administration of the Brigance Preschool Screen (BPS) to all 3- and 4-year-olds by their classroom teachers. The purpose of a screening instrument is to obtain a sampling of a child's skills and behavior in order to identify the child in need of a more comprehensive evaluation. The BPS was chosen for several reasons: 1) the Brigance K-1 Screen is a widely used and well documented inventory; 2) screening can be accomplished quickly (in 10-12 minutes); 3) no special materials and no highly specialized training are needed; 4) the instrument is relatively inexpensive. However, at the time of purchase of this instrument (summer 1988), reliability and validity data were not available. Head Start teachers and teacher assistants administer the BPS six weeks after each child is enrolled in the program. Total score on the instrument varies from 0 to 100. The author recommends that a child who scores 60 or below should be given an in-depth evaluation. The third component involves written referrals for further evaluation, based on direct teacher observations. Any child identified through this process is then observed in the classroom by a member of the Mailman Center Head Start Team. When necessary, a child is referred to the Mailman Center for further evaluation. In 1988-89, 3,025 of the 3,403 children enrolled in Head Start that year were screened. Not all enrolled children were screened, as some children were absent on the day the screening team came to their preschool, some children enrolled in Head Start for only a short period of time, and others entered late in the school year. However, the screened sample was representative of the entire sample.

RESULTS: In terms of the number of children passing and failing each screening component by ethnicity, a number of points are noteworthy: a much larger percentage of Haitian children (22%) failed the screening process than Hispanic children, who likewise failed in greater percentage (17%) than Black children (12%). These results are largely due to failing the BPS. Using the designated cut-off score of 60 or below, the BPS appeared to over-identify children, since about 10% of this population is expected to have special needs. In addition, very few children were identified either by the screening team or by teacher referral. Given the large number of children who failed the screening process (445) and the limited resources available to perform in-depth psychological evaluations, a strategy was implemented to maximize identification of children with special needs. Such a strategy was possible because all the data needed to make such decisions were available on-line in our computerized case management system. This system, in addition to merging data from three different sources and three different computer systems, is extremely user friendly and provides both report writing features and structured queries across tables within the database. Using this system, children who failed more than one component of the screening and children with an extremely low score on the BPS were first identified and contacted for follow-up evaluation. This strategy was not implemented fully, since many parents of children with the lowest BPS scores did not return consent forms to allow for the evaluation of their children.

The following points about the follow-up are noteworthy: 1) The BPS was the major source of referral for follow-up evaluations. Unfortunately, despite identifying a large number of children with special needs, this instrument also produced a very large false alarm rate; 2) The most common diagnosis was speech impairment. This is consistent with national data that show speech impairment to be the largest category of children with special needs through seven years of age; 3) Teachers, despite low levels of referral, were an independent source of identification for children with emotional problems; 4) The screening process was largely successful as 75.8% of children receiving follow-up evaluation qualified for special needs; 5) Boys were over-represented both in the group that failed screening and the group that qualified for special needs.

Based on these results, the following changes were implemented for the next school year, 1989-90: 1) A speech/language therapist was added to the evaluation team; 2) Teachers were given additional training on administration of the BPS, emphasizing the fact that translators were imperative, especially in the case of Haitian children; 3) Teachers were encouraged to trust their instincts and refer children for follow-up evaluation when problems were suspected. This dialogue with teachers also included developing a better understanding of our role in "helping them," as opposed to "evaluating them." Contributing to the low number of teacher referrals in our first year of screening was teacher concern that referring a child reflected upon their competence as a teacher.

The major findings from the second year's screening efforts are that, overall, fewer children failed the screening, many fewer failed the BPS, and teacher referral produced a larger percentage of those who failed, especially in the case of Black children. In many cases, these teacher referrals were the only source identifying the child as having special needs; again, the BPS proved to be a source both of significant "hits" and "false alarms." The screening process "hit rate" was again quite successful, with 69.3% of children who received follow-up evaluation qualifying for special needs. As was the case in the previous year, many more boys than girls failed the screening; they were evaluated and diagnosed with special needs.

CONCLUSIONS: This paper demonstrates the efficacy of using a computerized case management system that shares data from a number of screening sources. This system was made possible through the ongoing collaborative efforts of Dade County Head Start, the University of Miami, and the Dade County Public School System. By coordinating efforts and sharing ideas, resources, and personnel, we were able to accomplish objectives that none of the organizations could accomplish alone. A major advantage of having such collaborative data available "on-line" is that it allows us to evaluate the effectiveness of our efforts and thus affords us the opportunity to modify the system to make it more efficient. The availability of a large multi-ethnic Head Start population allowed us to begin to probe some of the important characteristics that define the enormous variability within Head Start. The increasing ethnic diversity of Head Start children in the coming decade needs to be studied carefully if the program is to maximize benefits to those enrolled.

Despite our high accuracy level of identifying children with special needs, we would like to minimize our "false alarm" rate even further. Analysis of the data leads us to the following local modifications in the screening and evaluation process: 1) Maximize staff contact with children and families. This goal will be implemented by forming interdisciplinary teams consisting of a psychologist, nurse, family service worker, and educator. Each team will be assigned to a quadrant of Dade County and thus will have responsibility for a smaller number of children and families. Shared expertise should lead to better service and closer contact with families, hopefully increasing parental input into the screening process. 2) In addition, we will continue to analyze these and forthcoming data, in an effort to increase the efficiency of our screening program. In particular, we will determine the effects of a) identification accuracy with varying BPS cutoff scores; b) differences in children diagnosed SED from BSP failure versus teacher referral; and c) comparison of "false-alarm" rates for Hispanic children as a function of their country of origin.

One area that should be addressed by Head Start is the relative advantage versus disadvantage of labelling preschool children by diagnostic category. Even though labels are used for counting purposes, children do not receive special services without these labels. A number of children whom we evaluated did not qualify for special needs, but nonetheless would undoubtedly benefit from intervention services. In keeping with the mandates of PL 99-457, we urge the consideration of abandoning the use of categorical labels for young children. The Division of Early Childhood (DEC) has recommended use of the term "developmental delay" for the 3- to 5-year-old period. An additional needed area of research involves the development of screening instruments that are more sensitive to cultural differences in young children and more accurately identify children with special needs. Despite our excellent "hit rate" and the modifications implemented prior to our second year of screening efforts, a significant number of children who failed screening did not qualify as having special needs. Many factors, such as ethnicity, produce variability within Head Start. Longitudinal studies that identify characteristics that vary in Head Start children and could potentially mediate outcomes must be conducted. Such data would allow the analysis of the sensitivity and specificity of screening instruments. Without such data, the determination of which factors play a role in promoting positive outcomes remains unknown.

A Comparison of Long-Range Effects of Participation in Project Head Start and the Impact of Three Differing Delivery Models *Yvonne B. Reedy*

Head Start may be delivered, using different options. The most frequent is the traditional model, in which Head Start services are delivered to children through a center-based program (Human Development Services, 1984). Social Services are provided through a family involvement worker. Home visits are completed by the parent and teacher at least three times a year, and parents are encouraged to volunteer in the classroom. The second option is Home-Based Head Start. Using this model, Head Start services are delivered to children by their parents at home, facilitated by a home visitor (Head Start, 1974). Home visits occur once a week. Group socialization is provided at least once a month. The third option is the locally designed model, which may be a combination of models, arranged to meet needs of a specific community.

While few studies have compared Head Start delivery models, a study done by the High/Scope Educational Research Foundation (1979) found no measurable differences between Head Start and Home Start. Murphy, Peters, and Bollin (1988) compared a home-based model, a classroom model, and a locally designed or combination model. The results indicated that all children made gains, with no significant differences on measures of achievement or teacher ratings of behavior. However, significant differences were found on measures of parent-child interaction. Compared to pre-test information, little change was found in parent-reported instruction time at home or social modeling and encouragement for children in center-based programs. However, in those programs conducting weekly home visits, parents reported giving more encouragement to their children, spending more time with their children, and providing more toys, games, and reading materials. Parents of children in the classroom model tended to spend more time as volunteers, but less time teaching their children at home.

METHOD: The present study, a follow-up to the Murphy, Peters, and Bollin study, was a quasi-experimental design examining pre-existing groups. In the original study, two modes of delivery, both operated by Cen-Clear Child Services, Inc. were examined. One was center-based with 18 children, one teacher, and one aide per class. Teachers visited the home three times a year, and social services were provided by a family worker. Two classes were operating at the time of the study. One, in the sparsely populated area of Burnside, Pennsylvania, was the only model offered in the region. The other was in the more densely populated area of Clearfield, Pennsylvania, where a locally designed model, consisting of one home visitor for every nine children, was also offered. In this model,

children attended class for two half days and received a home visit for one and a half hours per week. Social services were provided by the home visitor. During the study, children in the Clearfield area were randomly assigned to models. Since more children were enrolled in the locally designed model, 18 participants from this model were randomly chosen. Attempting to develop comparable groups, 18 participants were randomly chosen from the locally designed option in the Houtzdale area, a sparsely populated area demographically similar to Burnside.

A home-based model operated by Bedford-Fulton Head Start was also studied. In this model, each home visitor served nine to eleven families, visiting them for one and a half hours per week and providing group socialization twice per month. All families in this model were invited to participate. Random selection was made from those who responded affirmatively. Two groups were selected: one from the more densely populated McConnellsburg, Pennsylvania, and one from sparsely populated Mann's Choice, Pennsylvania. In selecting participants, efforts were made to control for group size, child/staff ratio, staff qualifications, geographic representation, curriculum, services, and children. The final numbers were: Classroom Option -- 30, Locally Designed Option -- 32, and Home-Based Option -- 38 (Murphy, Peters, and Bollin, 1988). For the current study, attempts were made to locate original participants and examine specific differences currently existent among groups. A control group was added to provide a further comparison and control for possible confounding variables. These participants were similar in make-up to those who had participated in Head Start. The particular question of concern was whether the different delivery models resulted in different long-range effects and how these compared with qualified children who did not have Head Start.

The participant population consisted of children in the initial study, plus a control group. Ages ranged from 7 to 9 years, and most were either in the second or third grade, in nine different school districts. When they were 3 to 5 years old, their families met Head Start federal income guidelines. Following a mailing to original families and control families, contact was made to explain the study and a meeting time was established. At the scheduled appointment, informed consent was obtained and consent was requested to exchange information with the child's current elementary school teacher. Whenever possible, all additional data were gathered at the time of this initial meeting. In a few cases, a follow-up appointment was scheduled. In addition, some information was gathered by telephone.

Information was gathered using the following measures. The Woodcock-Johnson Psychoeducational Battery -- Part II, Tests of Achievement, (Woodcock, 1977) was individually administered to estimate achievement in reading, mathematics, written language, and general knowledge. The Peabody Picture Vocabulary Test -- Revised [PPVT-R] (Dunn & Dunn, 1981) was individually administered to assess receptive language. The Child Behavior Checklist (Achenbach and Edelbrook, 1986) was used to measure the child's behavior as perceived by the parents and teachers. This checklist yields nine subscales of behavior, clustering into externalizing, internalizing, and total maladaptive behavior and three social competency scales, which combine to give a socialization score. The Vineland Adaptive Behavior Scale-Survey Form [VABS] (Sparrow, Balla, and Cicchetti, 1984) was used to assess the child's independent living skills, using the parent as informants. This scale consists of four adaptive behavior clusters. The Head Start Follow-up Questionnaire, used to assess parental perceptions of their involvement with the child, consists of questions designed to gather information about parental perceptions of the child's school performance and their own involvement with the school, interaction and learning at home, effective discipline techniques, and ability to utilize resources and support systems. The instrument was completed as a structured interview. Because it is research designed and has not been standardized, it was pretested, using a sample of 15 former Head Start families who were not involved in the original research. It was modified and coding procedures were finalized to assure consistency. Thee questionnaires were coded by a second rater to assure accuracy.

The groups were compared on means of cluster scores for areas of achievement, on means of scores for maladaptive behavior and means of socialization scores, on means of domain scores and total adaptive behavior scores, and on means of receptive language cores, using a one-way analysis of variance. Where significant results were found, post-hoc tests were performed to investigate implications. Correlation coefficients were computed between corresponding scales on parent and teacher forms of the Child Behavior Checklist. Frequency of parent involvement as indicated by responses to questions on the Head Start Follow-Up Family Research Questionnaire for the four groups was compared using a chi-square test. At the time the control group was selected, it was noted by Head Start directors that it might not be a true control group because both programs prioritize children to be accepted by demonstrated need. Therefore, the children in the three study groups were assumed to have begun at a disadvantage over the control group.

RESULTS: There were no differences among groups in reading, math, written language, or receptive language. Examinations of means, however, reveals that Head Start children scored equal to or better than non-Head Start children on these measures. They also achieved levels in the average range, when compared to national norms. On the measure of general knowledge, a linear contrast indicates Head Start children scored higher than the control group, significant at $p<.05$. Reasons for this are speculative, but one hypothesis is that Head Start children were exposed to a wide variety of experiences that provided a strong background in general knowledge, which may otherwise have been denied. Children were compared on measures of Maladaptive Behavior and Socialization by parent report. The Head Start children had significantly lower scores on both subscales and total scale on the measure of maladaptive behavior, and total maladaptive scales. It would appear from this that Head Start is effective in training children in socially appropriate behavior, a major emphasis in all of Head Start. On the socialization scale, differences were not significant at $p=.05$. They

were, however, significant at p=.10, and can be considered supportive of other findings. A linear contrast indicates no significant differences among Head Start groups on the scales of maladaptive behavior or on the socialization scale.

Seventy-two questionnaires were mailed to grade school teachers. Of these, 38 were returned and 37 of these were complete enough to be scored: nine from the control group, ten from the classroom model, ten from the mixed model, and eight from the home-based mode. There were no significant differences among the groups on any of the scales on the teacher report. However, this could be a result of the small number of questionnaires returned. To examine relationships between parent and teacher perceptions of behavior, results of parent reports were correlated with results of teacher reports. Positive correlations were obtained for all scales, significant at $p<.05$. Since it was expected that the items would correlate positively, a one-tailed test was used.

On the adaptive behavior measures, Head Start children scored higher than non-Head Start children in all domains, as well as in Total Adaptive Behavior. Comparing Head Start models, there were no significant differences in communication skills. However, in daily living skills, social skills, and Total Adaptive Behavior, the classroom group scored significantly lower than the other two groups at the levels shown. A possible explanation for this may be the parental focus of home visits. In the classroom, children receive direct instruction in adaptive skills. However, on a home visit, parent and child are taught together, with the focus on teaching the parent to reinforce these skills and to encourage continued growth.

To compare parent perceptions of their own involvement, a frequency count was completed and a chi-square obtained on each item. Significant relationships were found on questions related to providing a learning environment, time spent working with children at home, seeking information about age-appropriate expectations, use of corporal punishment, locating community services, and accomplishments related to involvement in the schools. Control group parents reported feeling less able to provide a good learning environment, spent less time working with children on schoolwork, were less likely to seek information about age-appropriate expectations, were more likely to resort to spanking, were less able to find community services, and were less likely to feel their involvement with the schools had resulted in accomplishments.

Comparing Head Start groups, parents of classroom children reported they spent smaller amounts of time working with their children at home and were less likely to seek information about age-appropriate expectations. This is consistent with findings of Murphy, Peters, and Bollin (1988), and likely reflects differences in parent training among the models. In addition, parents of classroom children were less likely to feel their involvement in their child's education resulted in any accomplishments. Explanations for this are only speculative; however, one hypothesis is that in Head Start, parents of classroom children have many opportunities to volunteer in a group setting, but do not receive much training in subtle methods of involvement with their child's education. Therefore, when the child enters public school, and encouragement to volunteer is absent, parents may perceive their own contributions as limited.

Finally, there were significant relationships between groups in response to the question of adjustment to kindergarten. The parents of home-based children were more apt to cite academic readiness skills as being easier for their children due to participation in Head Start, while classroom and mixed models were more apt to cite skills related to socialization as being easier because of Head Start participation. It should be noted that this is the only measure on which mixed model children were more closely aligned with classroom children. On all other measures, mixed model children more closely resembled home-based children.

DISCUSSION: Participant selection contributed to limitations of this study. Head Start groups were chosen from pre-existing samples, and because of elapsed ties, sample size was restricted by attrition, possibly resulting in too little power to reject an otherwise significant null hypothesis. Also, since all participants live in rural Pennsylvania, results may only be generalizable to similar geographical areas. The control group was selected from children who qualified for Head Start but were considered low priority because they had no known concerns. Although the original study excluded children who had documented handicapping conditions other than speech and language, five of the children in the original study were later diagnosed and placed in special education classes. By contrast, although there was no significant relationship between group and special education services, the only special need identified for the control group was speech and language impairment. Therefore, this variable was not well controlled and may have affected the outcome.

Procedural limitations involve the nature of the instruments used. Many of them rely on parents as informants. Because Head Start parents interact frequently with Head Start staff, it is conceivable that the parameter being measured is the ability of parents to supply expected responses. The teacher reports tend to refute this. However, observational data would have provided valuable information. The study design included a flaw which could be counteracted. Pre-test data exist for the groups of Head Start children and, ideally, this could have been co-varied with current data to control for differences that might have existed among groups. However, since the original study did not include a control group, no pre-test data existed for that group, eliminating that possibility.

While this research reveals some distinctions among Head Start delivery models and lends credibility to all methods of delivering Head Start, it would be important to follow these findings with more in-depth research. Future studies should focus on larger groups of children, and replication should use urban and multi-cultural populations. The apparent advantages of a home visit may be valid for rural regions but may lose their effects when implemented in a different setting.

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Home Visiting Options Within Head Start: Results of a National Survey

Richard N. Roberts, Barbara Hanna Wasik, Todd A. Souter

Home visiting services involve a consistent contact outside the center, usually in the client's home between the family of a child and the representative of a formal agency for the purposes of providing help to that family. The dearth of information about the types of home visiting services provided to families and the need for more complete information about the manner in which the home visiting option within Head Start is operated in the field are the reasons for this study. Differences between Head Start and other home visiting programs as a function of the characteristics of children served, the services provided, and the qualifications of home visitors are particularly important to understand. As part of a larger national study of home visiting programs, Head Start Home Visiting programs were compared to those from other health, education, or social service affiliations. Information was gathered through a survey instrument described in Roberts and Wasik (1990). When compared to health, educational, and social service affiliated home visiting programs, Head Start home visiting options were more focused on a) the population they serve; b) the purpose for parents and children; c) what services were seen as important; and d) who was providing the home visiting services. They appeared to have a clearer philosophy for what they were doing, and this philosophy was translated into actual practice, as described by the programs themselves.

The troubling components of the Head Start home visiting option involve several areas -- efficacy, training, and coordination. The recent GAO report and the informal review of home visiting programs by Olds and Kitzman (1990) provide evidence for at least some developmental gains for children involved in home visiting programs. The length of these gains and their importance in long-term impact on social outcomes for children and families is very unclear. The long- and short-term efficacies as applied to home visiting and early intervention is not answered in the way that center-based programs have answered that question for at-risk children. It may never be answered in a systematic way because it is very difficult to tease out the effects of a home visiting component from the multitude of services that real families in real programs receive.

Training was a considerable concern. A sizable portion of Head Start programs reported that they did not have training programs for staff. The high percentage of paraprofessionally trained personnel in Head Start programs accentuated the need for high quality training. In addition, home visitors needed support in ways beyond the technical transmission of knowledge. One way that support could be provided is through an integrated in-service training program. Given Head Start's community base, it was surprising that the Head Start programs did not report more coordination of their services with other agencies providing services to children. In part, this may be a function of the stand-alone administrative structure established by Head Start, where there is not a clear mechanism for them to share information and services with other agencies. Unfortunately, we continue to have a very limited knowledge base concerning the efficacy of these programs and the factors within a program that should contribute to the intended outcomes. The interaction of family characteristics, program services and program providers remains an unexplored and unexplicated arena. Even more importantly, we have few models with which to answer questions concerning factors such as intensity and frequency and what services families actually need rather than those that we are able to provide under the auspices of what exists now. If we are to create fully family-centered programs for at-risk children, these issues must be addressed in the next generation of research.

In the education of children 6 to 8 years of age (k - 2), there are presently two conflicting models of educational practice; numerous variations exist as a result of their combinations. Commonly labeled as developmentally appropriate practice and Academic Kindergarten/First Grade, the philosophical discussion about these approaches centers on how young children most effectively learn, what it is that is important for them to learn, and the effect of either model on learning by the child later in life. The role of the arts in these two models is radically different. Academic Kindergarten/First Grade programs generally view the arts as enrichment activities and schedule them as breaks, rewards, or as "rest and recreation." In a program that is dominated by this model the child experiences

the world primarily through his or her teacher's organization of it. In contrast, Early Childhood Educators, in both pre-school programs and the public schools recognize the essential role the arts play in the education of young children. A program dominated by developmental concerns recognizes that children learn through their own activity with objects and materials, and through the subsequent application of the knowledge gained from such manipulation. Current pressures to provide academic status for arts education have fueled efforts to compete for time and space in a tightly structured core curriculum in which the child is the recipient of lessons. Arts education, in order to "fit" more effectively into the educational structure has attempted to meet the characteristics of mainstream education -- a common curriculum validated by experts, and knowledge that is denotative and testable. We have ignored what is perhaps our greatest ally -- early childhood educators and a curriculum that moves naturally from experience in the world as a basis for education through knowledge and then on to skills.

The short-term impact of this project was evidenced through the development of this pilot project in the United Head Start Program and in the public schools. The project provides visible evidence of multi-agency programming that responds to the needs of young children in an art-centered environment. Additional impact was in the dissemination of project products and deliverables through the Regional Head Start Conference and the use of those materials in pre-service and in-service programs in Head Starts and public schools throughout the state. In the long term, the development of a responsive parent/community support system that is knowledgeable about the role the arts have played in their child's education is envisioned. With a well-defined and effective program in place we will be ready to lend technical assistance to early childhood programs as they become available through the public schools.

If we are to secure the role of the arts in the learning process for children, arts education practice must be shaped by what experts know about how children learn. In addition to being developmentally appropriate, arts education efforts need to be socially relevant for the community of students it intends to serve. Specifically, we recognize the "opportunity gap" for children of low income parents to experience and actively participate in the symbol systems called the "arts." As a consequence, their ability to notice, describe, and interact with symbolic form is put at risk, as is their power to be symbol makers, to act upon the human ability to speak, dramatize, and graphically represent experience.

This project addresses the need for a visible developmentally appropriate arts-based program to meet the needs of children 3 to 8 years old. Additionally, it reaches kindergarten and first-year students in selected elementary schools that have not effectively assimilated into the traditional academic curriculum structure. The program will integrate the use of resources from the arts community as part of a multi-agency effort to meet the physical, social, emotional, and educational needs of the participants. It will also provide a framework for the development of pre-service/in-service instruction and materials. The primary beneficiaries are the direct participants and their parents. Secondary beneficiaries are the educators who will make use of the products and printed materials or provided pre-service/ in-service opportunities as a result of this project.

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Correlates of Maternal Depression Acceptance/Rejection Among Mexican-American Migrant Farmworker Mothers *Mary Lou de Leon Siantz*

Long-term problematic life conditions have been found to affect the overall mental health and behavior of mothers during the preschool years. In addition to affecting maternal mental health, such problems detract from a mother's effectiveness as a caregiver. Problematic life conditions converge upon Mexican-American migrant farm worker mothers. Yet only since the mid-1970s have researchers begun to recognize the extent of stress in the lives of Mexican-American women in general (Ruiz, 1977; Ruiz, Casas, & Padilla, 1977). Even less is known about the problematic life conditions of Mexican-American migrant mothers and their potential effect on mental health and behavior. These mothers are especially at risk because of the stressful conditions of low income, limited education, low socioeconomic conditions, substandard housing, and frequent mobility. Not all mothers exposed to problematic life conditions succumb to the stress in their lives. The ameliorating effect of social support on parental stress is well documented. Although social contact with neighbors, friends, relatives, and significant others has beneficial effects, it is the match between support wanted and needed and support received that is critical (Belle, 1982; Belsky, 1984; Gottlieb, 1985).

The purpose of this study was to assess the problematic life conditions of Mexican-American migrant mothers and investigate the effects of social support on the relationship of those conditions to maternal acceptance/rejection and maternal depression. It was hypothesized that total social support (task, accessibility, emotional, sources, satisfaction) would account for more of the variation in maternal acceptance/rejection than would problems in life conditions (education, employment, relatives, friends, partner/spouse, children, health, housing, finances). It was also hypothesized that variations in the kind of social support (directive guidance, nondirective guidance, positive social interaction, tangible assistance, child care) would negatively correlate with maternal depression.

METHOD: One hundred Mexican-American migrant mothers of normal preschoolers aged 3-5 who were currently registered with the Texas Migrant Council Head Start Program volunteered to participate in the study. Texas has the largest population of Mexican-American migrant farm workers and is the primary home base for migrants in the United States. Because of this, a sample from this state was thought to be representative of the Mexican-American migrant population. All mothers approached agreed to participate. Many respondents spontaneously said that the opportunity to help other mothers like themselves influenced their willingness to participate. That Spanish was used was also a positive influence on their consent. As a group, the respondents averaged 8.3 years of education. The majority (62%) spent 11 or more hours each day working the fields. Their ages ranged from 19 to 57 years, with an average of 30 years. Of the sample, 72% had been born in the United States, and 26% in Mexico; 2% did not report their birthplace. Eighty-nine percent were married. The majority of the mothers (59%) saw their families every day, with an additional 15% seeing their relatives one or more times a month during the migratory season. They were primarily a group of working mothers (85%), with migrant labor as their only source of employment (90%). These mothers averaged 3.7 children, whose ages ranged from 1 to 11 years. The average was 9.7 years for the oldest child in each family. The target preschool child -- the child each mother was asked to think about when answering questions related to children -- averaged 4.3 years.

English and Spanish versions of the recruitment statement and consent form were available. The mothers were given the choice of language in which to be interviewed. Trained bilingual interviewers individually read each question to the participants during a two-hour interview (because of the potentially limited ability to read or write that other researchers have documented for this group, Reyes Associates, 1980). Interrater reliability, calculated as percentage of absolute agreements on interview responses, averaged .97 with a range from .94 to .99. Interview questions focused on five major areas: demographic information, social support, acceptance/rejection, depression, problems in life conditions. Demographic data included the mother's age, number of years of education, place of birth, number of years in the United States, number and ages of children, marital status, and socioeconomic status.

The Inventory of Socially Supportive Behaviors (1988), developed by Barrera, Sandler, and Ainsley (1981), measured supportive actions, which included material aid, sharing tasks, giving advice, and helping others master emotional distress. In order to measure the type and amount of support received, respondents were asked to rate the frequency of 40 supportive items on a five-point scale. In addition, total ISSB scores were calculated by summing the frequency ratings across all 40 items. The ISSB has well-established validity with a high internal consistency and test-retest reliability (Barrera et al., 1981). In developing the ISSB, Barrera and Ainsley (1983) also identified four factors that accounted for the variance in the rotated factor pattern matrix of the ISSB, using a factor analysis procedure with a varimax rotation: directive guidance (76.3%), such as giving feedback and advice; nondirective guidance (11.6%), i.e., expressions of intimacy, unconditional availability, esteem, trust, physical affection, and listening; positive social interaction (7%), which includes joking, kidding, cheering up, diversionary activities, and sharing interests; and tangible assistance (5%), which includes activities in the form of giving shelter, money, or physical objects of value. As the ISSB was developed with a sample of college students, it did not include questions on the specific assistance that low-income mothers of preschoolers need, such as child care, housework, transportation, and groceries (Belle, 1982; Belsky, 1984; Colletta, 1981). In order to measure the special support needed by low-income mothers, seven questions from the Stress, Support, and Family Functioning Interview (SSFI; Colletta, 1981) were also included.

The SSFI was based on the Harvard Stress and Family Project (Belle, 1982), which developed instruments able to predict the mental health and role behavior of adult low-income mothers. The SSFI has well-established reliability and validity (Colletta, 1981). SSFI questions were forced choice and focused on specific issues, precluding vague responses. For example, mothers were asked, "How is the following task done in your household?... Shopping for groceries?" The possible responses included: you only, you mostly, you and someone else equally, someone else mostly, someone else only. Responses from the ISSB and SSFI were combined to give a total social support score, as well as the cumulative frequency of subscores measuring task support, accessibility to support, emotional support, sources of support, and satisfaction with support.

Maternal acceptance/rejection, maternal warmth/affection, aggression/hostility, neglect/indifference, and rejection were measured by the Parental Acceptance/Rejection Questionnaire (PARQ), developed by Rohner (1975). The PARQ is a self-report, 60-item instrument that asks mothers how they treat their children. Responses are forced choice and the range is: almost always true, sometimes true, rarely true, almost never true. Low scores reflect maximal parental acceptance and minimal parental rejection. The reliability and validity of this instrument are well established.

The Center for Epidemiologic Studies Depression Scale (CES-D) was used to measure depression (Radloff, 1977). The CES-D was designed to measure symptoms of depression in the general population. These symptoms include hopelessness, despair, loss of appetite and sleep, and change in level of activity. The CES-D has well-established test/retest reliability, high construct validity, concurrent validity, and internal consistency (Radloff, 1977). The present study used a score of 16 points or more to indicate depression.

The Stress, Support, and Family Functioning Interview (SSFI), based on Harvard University's Stress and Families Project (Belle, 1982) and revised by Colletta (1981), was used to measure problems in life conditions. The scale assessed steady, unchanging, or slowly changing oppressive conditions that must be endured daily, are subjectively stressful, and involve role, status, health, and way of life (Makosky, 1982).

In this study, problems in life conditions included education, employment, relatives, friends, partner/spouse, children, health, housing, and finances. All questions were forced choice and varied in form. Some answers required dichotomous scoring (yes/no). Other responses provided five or six responses from which to choose. The total problems in life conditions for each respondent was the total frequency or problems in life conditions. In the present study an internal consistency reliability of .90 was established with a Cronbach's alpha.

RESULTS: Hierarchical multiple regression analysis was used to explain the variance in maternal acceptance/rejection in the presence of problems in life conditions with social support. Although the independent variables were intercorrelated, the magnitude of the correlation between problems and support variables were not considered high enough to remove the variables from consideration. The problems in life conditions scores for each respondent were forced into the equation in the first step. The total social support score was then entered in a block. Total social support accounted for 75% of the variance in mothers' acceptance/rejection of their children (F-56, df=1,98, $p<.001$). Next, the social support subscores -- the cumulative frequency of task, accessibility to support, emotional support, sources of support, and satisfaction with support -- were entered sequentially. The contribution of each variable to the overall prediction was assessed at each step by the significance of the beta weight. An alpha of .05 was set as the level of statistical significance. When social support subscores were entered in stepwise fashion, accessibility to support was statistically significant, ($R=.88$, $p<.000$). Residuals were directly examined and no outliers, deviation cases, or other influential characteristics were detected.

Assessment of accessibility to support included measurement of contacts with actual sources of support, while moving through the mothers' migrant stream. The majority of mothers reported access to their husbands (77%), followed by access to daughters and sons, parents, siblings, and other relatives, and friends. In describing the task support available, the respondents were asked to rate the amount of sole or shared responsibility in a variety of household tasks. The most frequent source of task support was the respondent's husband (78%). Emotional support measured whether a mother could depend on her spouse/partner, family, or friends to share personal problems. Fifty-three percent reported that they could count on their husbands if they had a problem they needed to share; 58% commented on the availability of family; and 45% felt supported by their friends. While closeness to parents was reported (77%), only 45% reported that they could discuss their problems with their parents. In addition, relatively few (16%) agreed with their parents concerning the rearing of children. In describing their satisfaction with support, 91% of the respondents reported satisfaction with persons available for confidence.

Next, a Pearson Moment Correlation was used to test the hypothesis that variations in kinds of social support (directive guidance, nondirective guidance, positive social interaction, tangible assistance, child care) would negatively correlate with maternal depression. Positive social interaction was positively correlated with depression ($r=.26$, $p<.01$), while child care support was negatively correlated with depression ($r=-.37$, $p<.001$). When mothers had support and assistance in the care of their children they were less likely to become depressed. When mothers shared their problems with others and diversionary activities such as joking and/or kidding were used, they were likelier to become depressed.

The mean score of the CES-D was 14.8 , which was significantly higher than the 9.25 mean score found in the general population (Radloff, 1977) and only 1.8 points below the cutoff score for depression (16). Forty-one percent of the sample was scored at or above 16. Radloff (1977) found that 21% of the general population scored at or above the cutoff score.

DISCUSSION: The results of the present study support the hypotheses that total social support accounted for more of the variation in maternal acceptance/rejection than did problems in life conditions alone. Access to support from spouse, partner, family, and friends was the strongest contributor of social support for this sample of Mexican-American migrant mothers. Having access to a selection of supportive persons to whom one may turn in time of need may be better than having only one person available. With greater choice, more resources for solving a problem may be available, as other researchers have also found (Vega & Kolody, 1985). A mother's access to a variety of supportive persons while enduring the problematic conditions of being a migrant farm worker parent may be an important factor influencing her response to her children. Without access to supportive relationships, the mother may feel abandoned, without anyone to turn to in time of need. Previous research (Colletta, 1981) has suggested that a mother with no one to share her problems with may be less warm and accepting of her children. If the mother has access to supportive relationships she may be more likely to receive the assistance that she needs, which in turn enables her to be warmer and more accepting of her children.

The results of this study only partially support the hypothesis that variations in kinds of social support (directive guidance, nondirective guidance, positive social interaction, tangible assistance, child care) would negatively correlate with maternal depression. Mothers with child care support were less likely to become depressed than mothers who did not have such support. When mothers experienced diversion from their problems, however, they were likelier to become depressed. Belle (1982) has documented the positive benefits of adequate child care assistance to the maternal mental health of low-income mothers. Colletta (1983) has also reported a positive relationship between child care support and the mental health of young mothers. Young mothers who have access to child care assistance have been found to be less depressed. Diversionary activities such as joking, kidding, cheering up, and talking about personal interests, (positive social interaction) had a negative correlation with depression. This may have been a result of Mexican women's negative cultural response to publicly sharing and joking about personal problems. It also might have been a

result of the women being overly sensitive, tense, angry, or uneasy about sharing their problems with others, especially if they were not taken seriously. These mothers also may find comfort in the knowledge that others perceive and experience the world as they do. Validation of problems may offer comfort. Depressed individuals have also been found to be uneasy and sensitive in social situations among friends (Weissman & Paykel, 1974).

Risk for depression also was considered. In this study, the mean score of the CES-D (14.8) was significantly higher than the mean score Radloff (1977) found in the general population (9.25). Radloff (1977) had found that only 21% of the general population scored at or above the cutoff for depression, while 41% of the present sample scored at or above the cutoff. Others also have documented that 18% to 20% of respondents selected from the general population reach or exceed the cutoff point for depression (Weissman & Meyers, 1978). Vega et al. (1986) established through a survey of 1,915 Mexican-American immigrant women in San Diego County that 40% of the sample scored at or above the cutoff for the CES-D. These findings suggested that Mexican-American immigrants were at risk for depression.

Other researchers have also suggested the possibility that a high mean score for the CES-D indicated a risk for depression (Weissman et al., 1977). In their study, Weissman et al. (1977) cautioned that some adjustments in cutoff scores for the CES-D might be needed for certain populations. Their findings suggested that a group having a high mean score but an overall score below the recommended cutoff for depression could be considered at risk for depression. The issue of borderline cases was particularly relevant to the sample of Mexican-American migrant farm worker mothers in this study. Their mean score (14.6) was only 1.4 points below the cutoff for depression (16). This sample presented an obvious risk for depression. This vulnerability to depression in particular suggests the importance of identifying those mothers who are isolated or lack access to spouse, partner, family, friends, and assistance with children. Lack of access to sources of emotional support and child care, combined with isolation, increase the risk for depression. While it is impossible to avoid stress, it is feasible to help mothers respond more positively to the stress in their lives. Maternal response will vary with the kinds of social support available to the mother. It is particularly crucial to identify a mother who lacks supports and is not likely to have substitute sources of support. The absence or malfunction of such supports with its consequent isolation is potentially even more distressing to a mother already at considerable risk for depression, and potentially harmful to her parenting. The fact that this study interviewed mothers with social support available from the Texas Migrant Council was a source of bias and a limitation of the study. However, the transiency of the group during the harvest season (May-November) and the difficulty of contacting and selecting participants in migrant labor camps on private farms and securing necessary clearance from farm owners and crew chiefs make identifying a more clearly representative groups impossible. Using self-report of behavior as the sole estimate of maternal acceptance/rejection was another limitation of the study.

Two important conclusions may be drawn from this research. First, access to social support is associated with maternal acceptance/rejection and lower risk for depression. However, as others investigating the effects of social support have suggested, if we are to understand the concept of support as a factor that reports maternal warmth, acceptance, and mental health, research must focus on not only the structural components of support such as access, but also the content of the helping relationship (Salgado de Snyder & Padilla, 1987; Vega & Kolody, 1985). This is needed to determine the actual conditions of the social contact that constitutes support. Second, the findings of the present research underscore the importance of social support to maternal warmth, acceptance, and mental health in the presence of problematic life conditions. Future research with Mexican-American migrant mothers should also consider the effects of such psychological resources as feelings of self-esteem and mastery on maternal warmth, acceptance/rejection and depression, as well as problematic life conditions and social support.

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Discussion *David Weikart*

I want to take a rabble-rousing position in terms of my reactions to the papers, which are not my reactions just to the papers. They are my reaction to where we are in the field. Therefore, I am not responding specifically to the papers. I want to ask some other questions instead. For example, in the first paper, on the screening of Head Start children, I got to thinking, Why are we doing this? What is going on? Why are these resources being spent this way? When we end up with half the kids identified, we cannot get parental cooperation. The issue isn't identification. The issue is parental cooperation. And not only that, of half the kids who are identified, only 40% are non-speech and language. Why are we still involved with speech and language at this age level? If it is an organic problem, o.k. But why are we involved with all of these functional problems? I realize that it helps Head Start to be able to use speech and language as the part of the 10% of problem youngsters. But I'm not sure that we should be spending our resources this way. For example, using the Brigance. But we're almost to the point of the Gesell test, where it would be cheaper to use a penny and flip a coin. With the Gesell, it's cheaper, and you can use the test instrument over and over again and still be as accurate. The Brigance almost seems to fail that way, except you noted that it was a training issue with teachers who were involved in trying to help kids improve and show change. What about the parents? Why the failure to follow up? What was the capacity or the inability of the parents to respond to this challenge to their kids? What does it say about relationships with programs, and with outside experts and parents? What do we have to do? It doesn't begin to document the range of problems. The teacher observations seemed to be important and could play a much larger role. But even then, given the problems that were documented, it's not enough. Even with that, teachers seem to identify things that were hard to reach. Obviously, the easiest thing for teachers to identify are the emotional problems, and, of course, that's what they picked up, because you can see those. And, finally, if we put all of these things together, it suggests that there may be some other ways that we might begin to work. The first thing to do, however, is to stop screening. Second, let's start working with the same dollars and the same talented staff and propose that this group be in teams to work on developing teacher observation skills. Of course, you have to obtain rapid referrals for any physical problems, any organic issues, and those must be identified early on, as they usually are.

We have to remember, too, that non-professionals view tests as magical. I'll never forget the teacher who traced me down, chased me down the hallway when I was a school psychologist and said, "But, Dave, Dave, stop. I need to talk to you." I said, "Yes, Rosemary, what's the problem?" And she said, "Johnny's still not reading any better, and you tested him last week." This notion of the magical property of instruments. We have to move away from that. I think that the other thing is that we have to find ways to really include the parents as well as the teachers in this screening process. Better, perhaps, is to begin through a parental access procedure to obtain information, and then build up to where we pull the youngsters in with parental cooperation. Again, I promised I would play Devil's advocate, and I am, so I don't really mean everything I say. But I am trying to urge that we should think about this in a different way.

The second study that I want to comment on is Roberts'. You have a fine collection of data on shared issues. But I do have some questions -- again, rising above the paper -- about why we are so fond of such large samples collected from those who have volunteered to cooperate with us. You know, I would be much more interested had they taken a random sample of those and gotten it down to 50 programs, and had gone and actually lived with those programs for a while and teased out these issues. I know that the purists in the group would all love the statistics and the broad samples and so forth and to talk about them. But all we know about are those who cooperate, and those who cooperate are the ones who send in the materials and who have more confidence, more energy, are more outgoing, etc., because it actually takes a lot to fill out a 14-variable -- no, a 432-variable -- paper. This is an issue that, as researchers, we need to begin looking at. It is time to move away from large-scale studies with those who will cooperate. We should select based on the process, gaining cooperation from those whom we work with, and then get the precision data. We should spend large amounts of money obtaining smaller amounts of data, but in a more intensive and clearer fashion. Again, that means travel, and that means lots of problems. But it's a process. We do know from this study many fascinating things. I think the training discussion alone was worth the study, and I think we have to look at that, even if the data aren't accurate, so to speak.

Nevertheless, the data on this sample are accurate and large enough to make you pause and think about the training issues, because as I suspect you suspect, it is far worse than you outlined. And you have been given, even with all the reservations, the benefit of the doubt of the group. But it seems to me that there is a need for things like systematic training for both teachers and support, as well as home visit staff and those who support the home visit staff, and certainly there is the need for community coordination. Finally, there is the gnawing feeling that the home visits are not as effective as our philosophy about home visits is. The point is that we philosophically feel good about them. They sound right. When our staff first proposed home visits -- our social staff for the Perry Project in the early 1960's -- there was no debate among the staff about doing it, because it sounded right. After all,

what better way could you effectively involve parents in the process? But we have yet to solve that problem, that process, the cost end of it, the energy of it, the doors-in-the-face issue of it, the see-if-there's-any-mother-who-sits-in-the-corner-all-year. There are lots of problems to deal with.

The remaining two papers were equally fascinating and particularly important in terms of viewing various kinds of models. The Pennsylvania study, looking at the three different models of delivery, home-based, etc., is one. One of the problems we have with all of these types of studies, however, is that we have yet to find ways of gaining adherence to or assessment of the quality of the programs being viewed. We tend to look at the model being delivered and say it exists. It's like going down the street and finding an elementary school and saying it's an elementary school. We know what goes on in the school, and yet we don't. We know that some elementary schools may be good. Some may be poor. There are all kinds of problems. Just because it says elementary school or home visit or Head Start doesn't mean that we know what's going on in the programs -- as, indeed, the other papers have indicated. So we have the issue, then, of trying to wrestle with the question of what the quality of the programs is. My major recommendation for this type of study in the future is that a serious effort be made first to assess the quality of the programs that are being observed when doing the study. That places a heavy burden on the studies. I think we have to do that. The qualify of some of the new studies coming down has to be looked at. It is not just a matter of meeting NAEYC standards, High Scope standards, or the accreditation standards of some group. It means actually getting in and assessing some known instruments that are cooperatively agreed to and therefore having a basis for judging where the program stands.

Finally, on the issue of maternal depression, I was pleased to see, in fact, that the study was not about depression. It was about opportunity. The issues that were raised about working with the mothers and about their access to social support and the extended family made it an affirming study about what really makes things work. I liked that. One thing I found interesting was that that diversionary activity, such as joking, kidding, cutting up, talking about personal interests and personal problems, and so forth, didn't seem to help the mothers. That was fascinating, because, typically, when I'm working with home visiting programs, the major problem is to stop staff from performing such programming, from making it a kind of social diversion. And what did work for the Mexican-American women was access to consistent, concrete services that help in child care, that give instructive guidance. These are the kinds of things that, with proper training and good access, we would find very supportive. I wish the author had titled it something else, not depression, but something like opportunities for effective outreach. I hope you will continue to bring these things forward, so that this process can be used.

In conclusion, all of these papers, in a sense, reiterate the need for us to find ways to actively include parents in the process of research -- if we can reach out before or while things are going on. And I think that we need to use them, for example, in the screening. But how do we work with them? How do we plan for children? What services do we deliver? It would help us crystallize what we are doing. The second is the role of the teachers in programs -- the training necessary to help teachers, particularly in observing children, especially where we want information about children. Testing and screening, I think, are best done over time, not as an isolated incident when some outside person comes in. The Haitian children's zero would be a good example of something you knew was a problem right when you saw it. Nevertheless, it went through the data and you had to sort all that out. This is just a simple illustration. We need to avoid the one-time assessment of children, or even programs. We need to begin to look at naturally occurring situations where we can make a professional judgment over time. This is my argument for not collecting a great deal of data from a number of programs (obviously, you have to do that at some points), but, instead, increasing the data and time spent on a smaller number. Finally, avoid artificial testing situations, artificial tests, in favor of naturally occurring events.

Larry Schweinhart has been working on an observation instrument for teachers to use as a way of assessing preschool progress. But it is done over the course of a year, and so, at the end of that time, you have actual process. It is almost like a Vygotskian approach, where you are looking at zones that develop.

Finally, where is Head Start research in general? These local programs need to be included actively in the process of what we are doing. This suggests that before we set up these research projects, we need to engage the cooperation of agencies that will be involved and include them in the process of thinking through what we want to do, both to help shape our research -- to make it more effective -- and to gain insight into the issues -- observations and perspectives which they hold that may change our research.

My only experience with this was the Head Start Research Cooperative Panel, which Al Smith, our project officer, led. We found how differently these agencies began to think as they worked with us and how differently we began to think as things gradually evolved. Many changes were made in the research in concert with changes in the agencies as they began to consider research as an integral part of what they were doing. I would urge you to include places where they will be involved at the early stages of the project, even if it takes extra time and energy, because you will find that their input helps reshape the project. My congratulations to the four groups of authors and their fine set of papers. Together they bring a great deal of interesting information that is useful to the field, to Head Start, and to me as an individual.

AUDIENCE DISCUSSION

How important the quality of Head Start programs will be in planned evaluation research was raised. Presenters agreed that the quality of a program is key to evaluating Head Start; however, programs adhere to different models. Some models are easier to assess than others. For example, programs that are centered around the socioemotional development of the child are harder to

measure than cognitively-based models because the measurement indices for the latter are not as well defined or tested. In most programs, an eclectic model is used which makes it even harder to assess.

Panel 114 THE EFFECTS OF NEIGHBORHOOD POVERTY ON CHILDREN AND FAMILIES

Chair: **Jeanne Brooks-Gunn**; *Discussant:* **P. Lindsay Chase-Lansdale**

The Impact of Neighborhood Poverty on 3-Year-Old Black Children's IQ and Home Environment

Jeanne Brooks-Gunn, Pam Kato

Greg Duncan, Lindsay Chase-Lansdale, and I are doing work on neighborhoods and how they influence children. A lot of lip service has been paid to neighborhoods as a place or context that affects children, but there is very little research done on neighborhood effects.

As a starting point, we used Bronfenbrenner's model of ecosystems and different contexts in which children develop. The contexts most often studied are peer, family systems, and school or child care systems. Very few people in developmental and educational psychology have looked at the neighborhood. Recent changes in some of the socioeconomic composition variables of neighborhoods give us a sense of urgency to start understanding neighborhoods. Some of the projects you are working on will resonate to some of the changes that have triggered us to think about neighborhoods more seriously.

Between 1970 and 1980, the fraction of poor urban Blacks living in very high poverty neighborhoods (defined as having poverty rates of more than 40%, i.e., more than 40% of the residents would be classified as poor) jumped by one-third. At this point, 36% of urban Blacks live in what we call the 40-plus neighborhoods, what other people would probably call ghetto neighborhoods. Especially hard-hit over this 10-year period were Blacks and Hispanics in the Northeast and the Midwest. Trends will continue. The situation is actually worse than what the data in 1980 tell us in terms of how many families live in these very impoverished neighborhoods.

There are four different theories that can be used to think about how neighborhoods might affect children. The first has been called the contagion theory. Proponents of this theory argue that peer influences spread problem behavior. If a lot of peers engage in certain types of behavior -- in this case, negative behaviors -- you expect a contagion effect on other people in the neighborhood. The second theory is what Sandy Jenks calls collective socialization, in which neighborhood role models and monitoring are important in understanding how children get socialized. If some of these role models are not in place on the neighborhood level, there might be less socialization of children and more problem behaviors. The third model is a competition theory. This is quite different. It suggests that neighbors, including classmates, compete for scarce neighborhood resources. So you would have a competition system set up in neighborhoods that do not have a lot of resources. Of course, high-poverty neighborhoods are those in which there aren't as many resources as in less impoverished neighborhoods. The fourth theory is a relative deprivation theory, individuals evaluating their situation -- a relative standing *vis-a-vis* classmates or neighbors.

The first two theories, contagion and collective socialization, would predict that having middle-class neighbors would confer benefits to children. The last two, competition and relative deprivation, would suggest just the opposite. So you have two different ways of looking at whether having middle-class neighbors confers benefits or causes problems for children. Most people have not tested these models specifically.

Taking elements of the theories of collective socialization and contagion, Wilson, in The Truly Disadvantaged, galvanized the whole research community. He talked about the structural changes in post-industrial society that have contributed to an increase in the number of poor and jobless people in inner-city neighborhoods. Additionally, he has tried to look at connections between these structural changes and the behavior of residents of poor inner-city neighborhoods. He is trying to add an element of psychology to this theorizing, which is very interesting. He now includes families as well as structural changes in society. He argues that behavior and cultural values -- the types of things that we impart to our children -- have a role in the growth and perpetuation of joblessness, dependence, and poverty -- what people would call ghetto neighborhood situations. He suggests that residing in a neighborhood where very few hold jobs, where few families have both parents in the household, and where few jobs are located leads to social isolation. Social isolation then contributes to the kind of socialization practices and family lifestyles developed in these communities. These are styles that are unlikely to stress the habits and beliefs associated with steady employment. He states that employment changes due to structural changes and discrimination (jobs moving out of the inner city) have led to a series of behaviors in the families that further isolate families from mainstream job situations. That is the framework he uses. He suggests that such socialization practices in a socially isolated neighborhood might emphasize the present rather than the future; it might place little value on planfulness or organization, which in turn could exacerbate the effects of joblessness, because people would have what has been termed "weak labor force attachment."

All the conditions he has talked about might be expressed in terms of individual psychological dimensions that we might see in mothers, such as low self-efficacy, low problem-solving, and a present rather than a future orientation. We might also see some of these things expressed in family interaction, such as parenting behavior, how the household is organized, and the kinds of learning

experiences that are provided by parents in socially isolated neighborhoods. He has set up a structure that we can start using to test the models. By putting in some of the variables that he is talking about, researchers can study the home environment and measure mothers' problem-solving skills.

We have taken neighborhood and family characteristics, and we are interested in how they act independently and together to affect child outcome. We are taking two points -- early childhood, and late adolescence -- to do this work. We are taking two behavioral domains -- one is cognitive academic achievement and one is behavioral -- to test these theories. We have gone a bit further by using these two data sets. We are able to model some of these neighborhood effects in a way that has not been done before. Also, no one has ever modeled neighborhood effects on young children, which is interesting to ACYF. All of the work that has been done to date has been on high school students, using primarily schools rather than neighborhoods as the unit of analysis, by looking at things like high school dropouts.

One of the two data sets that we are using is the infant health and development program, which is a study of eight medical sites around the country.

Neighborhood and Family Influences on Teen Births and Dropping Out *Greg J. Duncan, Deborah Laren*

The population used for our study is mostly Black, although there are some Hispanic and some non-Hispanic whites. On the average, this sample has lower than national average socioeconomic status characteristics, including worse neighborhoods than the national sample. We have a nationally representative sample from which we have taken a set of adolescent girls who were observed between the ages of 14 and 19 during the panel period. The panel started in 1968. It has followed rules that are designed to keep it representative of the population across time. It sampled low-income families initially, so there are almost as many Black adolescent girls as there are white adolescent girls. The two developmental outcomes are whether or not a wedlock birth occurred before age 20, and whether the adolescent girl failed to complete high school by age 20.

A major innovation in the use of the data is neighborhood characteristics. A census tract is the smallest geographic unit for which abundant census information is available. We chose the 1980 census, matched addresses from our samples to tracts, and then patched in what the 1980 census said that conditions in that tract were. Tracts are actually drawn along real neighborhood lines by local committees formed by the Census Bureau. They average about 4,200 people. We also matched our addresses, not only tracts but zip codes, which were a larger geographic unit and less conforming to the conceptions of the neighborhood. It turns out that one of our outcomes, the zip code level, proved much more important than the tract level in predicting that outcome.

There are very few Hispanics in the PSID. Neighborhood characteristics in the sample from the PSID data are nationally representative. This gives you an idea of what typical neighborhoods of Black and white children look like in the United States.

We categorized the income distribution into three levels: families with an income of less than $10,000; families with an income of between $10,000 and $30,000; and families with an income of $30,000 and above. On the average, the typical teen grows up in a neighborhood where about one-fifth of her neighbors have incomes of less than $10,000, and about one-fourth have incomes of $30,000 or more.

There are huge racial differences, however. The typical Black teen grows up in a much worse neighborhood than her white counterpart. For a Black teenager, more than one-third of her neighbors have incomes of less than $10,000, while about one-sixth have incomes of more than $30,000. Our model has neighborhood characteristics as the independent variable and developmental outcomes as dependent variables. Our first task is to look at simple associations, forgetting for the moment about all the intervening variables and family background characteristics. We focused on the raw correlations between neighborhood characteristics and the developmental outcomes.

For the fraction of neighbors with incomes of less than $10,000 and the fraction of neighbors with incomes of less than $30,000, we obtained very strong, significant effects. The more low income neighbors you have, the lower the IQ, and the greater the chance of having a teen out-of-wedlock birth and of dropping out of high school. The same is true for the fraction of neighbors with incomes of more than $30,000. When we combined two variables, i.e., the fraction of neighbors with incomes of less than $10,000 and the fraction of neighbors with incomes of more than $30,000, we then had two variables -- one representing high-income neighbors, one representing low-income neighbors -- controlling for income distribution. The low-income variable becomes insignificant for the young outcomes and marginally significant for the teen outcomes. When the two variables were put in the same regression analysis, looking at the relative proportion of low and middle income families and at the relative population of high income families, the result is striking. It is not so much the presence of low income neighbors that is associated with detrimental outcomes, but rather the absence of affluent neighbors.

In terms of the collective socialization and contagion theories that Brooks-Gunn talked about, the simple correlations here tend to support a collective socialization theory where the absence of affluent neighbors is much more important than the contagion effect of the presence of low-income families. When family characteristics are added, our result is reinforced. The only neighborhood characteristic that turns out to be significantly related to these outcomes, if you are examining simple income distribution, is the proportion of families with incomes of more than $30,000.

The next set of analyses on neighborhood characteristics include controlling for family-level characteristics: family income, the presence of female heads of the family, and maternal education. Among the neighborhood characteristics that we have examined,

in addition to the income distribution, the only interesting one was the proportion of families in the neighborhood that were led by women.

Neighborhoods appear to be quite powerful. In our analysis, when comparing neighborhood variables to family effects, neighborhood variables are often as important, in some cases more important, than the kind of family variables that we are examining. With regard to neighborhood effects, it is the absence of affluent neighbors that is important, rather than the presence of low income neighbors, which is more consistent with a collective socialization view of neighborhood effects than with the contagion view. Even though neighborhood effects are important, family effects are also quite important, and, indeed, family effects mediates some of the neighborhood effects. If you look at IQ, for example, the home learning variable mediates about one-third of the effect of affluent neighbors on child IQ. Therefore, in considering interventions, one should not just think about changing people's neighborhoods but of intervening variables like the home learning environment, that could be targeted at the family level to ameliorate some of these neighborhood effects that are appearing.

Especially for the teen outcomes, the presence or absence of female-headed families in the neighborhood turns out to be, by far, the most important neighborhood variable. That suggests the importance of studying the ability of a neighborhood to monitor the behavior of its teenagers. This female headship effect shows up independent of the income level of the neighborhood. For out-of-wedlock births, it is actually independent of the extent of public assistance received in the neighborhood.

With these samples, there are not that many degrees of freedom to allow one to add in as many neighborhood variables as one would like. However, we did some experimentation with adding in some of the other variables. The female headship result, especially for the out-of-wedlock birth outcome, is quite robust with respect to a number of other neighborhood characteristics that were expected to be associated with female headship.

One neighborhood variable, the racial composition of the neighborhood, turns out to be a uniformly insignificant predictor of all four of the outcomes.

Therefore, when thinking the simulation of changing the average neighborhood characteristics of Blacks and whites, what is important is not that it is a Black neighborhood or a white neighborhood, but rather whether it is a low-income neighborhood or a high-income neighborhood, or a neighborhood with a lot of female-headed families or not. It is not a racial effect; it is an income effect, or it is an effect related to the family structure in the neighborhood as a whole.

Discussion *P. Lindsay Chase-Lansdale*

My comments will relate to the goal of the conference, i.e., Head Start in the 1990's. As I see it, the goal of Head Start originally was to break the cycle of poverty, and the motivation at the time was thinking about the child as an individual and the child's experience, and that experiences in Head Start would change the child.

As the programs have matured, and become far more extensive, they have begun to look into the way parents see children and the way they treat children at home. Head Start is also a community intervention, in a flexible way, but there have not been that many evaluations of how Head Start has changed neighborhoods. Head Start has the tradition of interlocking the child's individual experience to the family's and the neighborhood's experience. These papers are taking a very careful look at teasing apart these three lines of effects on children.

I see the papers as contributing to gaps between the field of developmental psychology and other related sciences to Head Start. The child development tradition has tended to focus on the child within the family, not the neighborhood in its broader context. In contrast, sociologists and economists focus on the macrolevel, and do not make links to the individual daily experience of children. It is very important to do this work and to spell out these levels. One might post the question then, "What are the major points we have learned today and what are their implications for Head Start?" First, there are indeed neighborhood effects on children. Not surprisingly, we have found that in more affluent neighborhoods children do better. This is a finding that occurs even after the family level variables are partialled out. However, what is very interesting and needs to be carefully though through is the fact that it is the absence of middle-class families that is having the effect, and not the presence of low-income families.

Second, we have learned that child development is more consistently effected by family variables, more so than neighborhood effects. For example, income of the family *per se* and maternal education have been strongly related to the outcomes discussed today. For example, leaving school and teenage fertility are higher when family factors are lower. In contrast, IQ is higher when family factors are higher. In the case of IQ findings, there are strong neighborhood effects, as well as structural family effects, i.e., maternal education. One of the strongest conclusions made today was the importance of the process occurring at home -- the quality of the environment provided to the child at home -- arguing that one should take into account all these different perspectives.

The final point that was underscored very strongly was conceptualizing neighborhoods from the standpoint of female-headed families and the need to start thinking beyond what it is like to be within a female-headed family, that is, to start thinking about what it is like to be in a neighborhood where female-headed households are prevalent. Another point that I thought was important had to do with mechanisms for neighborhood effects. For example, when there were fewer middle-class mothers in neighborhoods, one could then trace that to see lower levels of learning opportunities and positions within the home and not that much lower IQ. Also, as there are more female-headed families in the neighborhood, you see higher levels of behavior problems with the young children and higher levels of pregnancy with the older children and adolescents. They have proposed that the mechanism is monitoring -- which

means to watch and really see -- at the neighborhood level, if that is the case. Monitoring is an interesting concept to think about,, both for the younger children and the older children who are more likely to become pregnant. For example, think about being in a neighborhood where there is a prevalence of female-headed families. Why would children have more behavior problems in those neighborhoods? We need to think of the mechanisms so that we can assess what's going on. Are there community norms, for example, in these neighborhoods that somehow raise people's threshold level for being able to withstand behavior problems at home? What is that mechanism? We have a lot to learn to try to understand how we get from the neighborhood effect to the parent actually making decisions on a day-to-day basis about how to handle a child and how to set limits to avoid the behavior problems. The same is true with monitoring at the community level to prevent adolescent pregnancy. To measure neighborhood monitoring of this type of activity is a big challenge.

From this I draw implications for interventions for the families in these neighborhoods. We go back to the fact that it is a combination of neighborhood mechanism as well as family mechanisms; and this makes a full circle back to Head Start, where it is understood that children are affected by important processes at home. This is the orientation of Head Start, and it is still very meaningful in the context of this work. Similarly, we don't know what neighborhood means *vis-a-vis* adolescent pregnancy. Working with parents as individuals to think about ways of monitoring adolescents may have a cumulative neighborhood effect in terms of preventing adolescent pregnancy at later ages.

The last point I want to make has to do with where to go next, with another useful way to think about Head Start from the neighborhood perspective. A broad category that the three of us are very interested in is thinking about the use of children's services in neighborhoods, which fits very closely with Head Start research. In other words, at the neighborhood level, how do families come to know what services are available? How do they exchange information about what is available and who is running them? How do you get into them, and so forth? That is one set of questions. The second set of questions is how individual parents come to form beliefs about how their children are doing, whether they engage in problematic behavior or have potential for positive behavior. What is the difference between a family in a low-income neighborhood, for example, who is thinking, "I want my child in Head Start in this neighborhood," versus, "I want my child in a separate preschool program," or, "I'm not interested in a preschool program"? These types of questions reflect the need to understand more from families *per se*, about how they see their position in the neighborhood, and then conceptualizing how they see their children doing, if they are taking advantage of the resources in the neighborhood or are deciding which resource is important enough to find for their child to make the effort to go beyond the neighborhood.

To illustrate that point more concretely, Laosa has been involved in a line of Head Start research that is very interesting and has used a very extensive data base that ETS put together in the late 1960's. One recent study has illustrated this interesting interaction between neighborhood characteristics and Head Start. The way that Head Start was formed prior to even enrolling the children was that the people involved in implementing Head Start canvassed the neighborhoods for eligible children. The end result was that all of the potentially eligible children -- the 4 to 5 year olds in low-income families -- in these particular areas were identified. There were about 900 in all. Before Head Start, the people involved in implementing the program knew who all of the eligible children were. Then, one-third of the children went into Head Start, one-third went into other preschool programs, and one-third did not go into Head Start or preschool. The scientists evaluating the impact of Head Start had these three, naturally occurring, different groups. And it is interesting to ask, "How did these children sort themselves out into these three different programs?" The details aren't clear on that. It is a combination of individual family preference and decisions, recruitment on the part of the various program leaders, and different neighborhood characteristics. What happened then, after these three groups were forms, was that the people involved in the development of the data set and evaluation of Head Start measured and interviewed the families and measured the children's functioning prior to the beginning of Head Start. You can see immediately that before Head Start and the other preschool experience had taken place, the children who ended up in Head Start, in this particular study, were, in fact, the most disadvantaged. How did this come about? What led to this? Was Head Start more effective for the more disadvantaged children than for the more advantaged children? It also improves the study design, as well, to know these preexisting characteristics of children and families, prior to enrollment in Head Start. The larger point is to have a better understanding in the future of this important interaction between neighborhood resources and family resources vis-a-vis children's experience in services such as Head Start, so that we have a much better sense of the preexisting characteristics of children, as well as a better understanding of why some children benefit from these experiences over time and others do not.

JEANNE BROOKS-GUNN: The information on the early formation of Head Start is all anecdotal; it comes from some of the people who were running centers back in 1969-70. When I started analyzing the data, it was a little hard to go back, because I started doing this in the mid-80's. What we could gather is that some of the recruitment is really through the Head Start staff, knowing families in the neighborhood and going after families they thought really needed Head Start and were very disorganized. The other avenue was parents talking to other people and hearing about programs. Another strong one was church groups, letting the mothers of preschoolers know about Head Start in communities.

There were other things I have worried about, that one measured, with neighborhoods. If a Head Start is located in a certain building and you have to cross a dangerous neighborhood, you might not be willing to take your child to that Head Start. You may take the child to a program that's closer, because, today, this particular corner is known as a drug corner, and you don't want to deal

with it every day with your child. That is probably going on as well when you talk about catchment areas. We aren't documenting that. If you go into a Head Start center, I am sure everyone could tell you wouldn't come here through there, because...but no one is documenting that kind of information, about how you get to the programs. It could well be that what happened was that the children in Head Start were the ones whose mothers were not working. We did have more female-headed household families in the Head Start. That was significant. Also, women who are employed when their children are young are more likely to be higher on maternal education.

AUDIENCE DISCUSSION

The aspects of the findings from these studies that were of greatest interest to the audience dealt with ethnic breakdowns, movement of people over time, and the possible correlation between single parent families and teen pregnancy. The possibility of a single mother, who might have given birth as a teenager, being a role model for her daughter's teen pregnancy is a hypothesis that the presenters agreed should be considered. The findings for Hispanics could not be further broken down into different groups (Mexican-American, Puerto Rican, etc) because the sample was not large enough. The presenters plan to look at movement in and out of neighborhoods over time at some point in the future. Although the current data does not allow for the study of other neighborhood variables, such as resources and organization, the presenters indicated an interest in pursuing the collection of data on additional variables. One would be people's perceptions of their neighborhood, which may be quite different than how it is defined by the census.

Panel 115 FAMILY AND SCHOOL PERSPECTIVES ON LITERACY: RESEARCH AND PRACTICE

Chair: **Ricardo Romo**; *Discussant:* **Jana M. Mason**

Learning to Read: The Importance of Preschool Literacy Experiences *Marilyn Jager Adams, Jean Osborn*

It should be recognized that the word "phonics" is a red flag to some in the field of literacy education. Indeed, whether phonics should be taught at all is not merely an issue of serious contention among reading professionals, it is perhaps the single most hotly debated, highly politicized, and divisive issue in the field of education. In view of this, the Department of Education exercised both wisdom and caution on receiving Congress's request to produce the program by program evaluation of phonic curricula. Ratner, of the Department of Education, asked the Center for the Study of Reading to produce a research-based report to address the following questions: Is phonics a worthwhile component of beginning reading instruction? If so, why? And how does it relate to other dimensions of literacy growth?

In producing this report, we reviewed not just the literature on the merits and demerits of phonics instruction per se, but also theory and empirical research related to the nature of reading and its acquisition. As it happens, the information and arguments that are relevant to these issues are divided not only across the fields of education, psychology, and linguistics, but also computer science and anthropology. Within each of these fields, moreover, the research literature is divided again across scores of subdisciplines. Inasmuch as each of these subdisciplines is supported by its own separate sets of journals and books, each has accrued its own perspective on the issues, along with its own relatively distinct terminology and knowledge base.

Although the dispersion of the literature made our task significantly more challenging, it also made it far more worthwhile. Each field approached the issues from its own perspective and through its own methodologies; the answers each produced tended not to duplicate but to complement and extend each other in invaluable ways. The vast majority of the material reviewed consisted of those sorts of empirically bitwise and interpretively cautious scientific studies that typify scientific journal publications. It consisted of those sorts of highly disciplined studies that, taken one at a time, so often provoke an impatient "So what?" in concerned readers. Taken together, however, they present an impressively broad, deep, firmly interarticulated picture of the nature of being and becoming a good reader. Collectively, this work stands as sobering testimony to the enormous and irreplaceable power and value of scientific research. We stress this point in the hope that it will not be overlooked as our country turns in earnest to solving the challenges of preschool literacy support.

The debate over phonics centers on whether its instruction promotes or impedes development of the attitudes and abilities required for reading comprehension. Given that the goal of reading instruction is precisely and inarguably to foster not only a willingness to read but to further the social and disposition to do so purposefully, reflectively, and productively, we did not dismiss this debate. Instead we centered the report around it.

What is phonics? Phonics is instruction intended to help children understand the fundamentally alphabetic nature of our writing system and, through that understanding, internalize the correspondences between frequent spelling patterns and the speech patterns -- the words, syllables, and phonemes -- that those spellings represent. Summing up the phonics issue very briefly, the research indicates that readers can free their active attention to the processes of understanding what they are reading only to the extent that word recognition proceeds relatively rapidly and effortlessly. In turn, rapid and effortless word recognition depends on deep

and relatively thorough knowledge of spellings of frequent words and word parts and of their connections to speech and meaning. Furthermore, for many children the insights and observations on which this knowledge depends are not forthcoming without some special guidance and encouragement. The research indicates, in short, that phonics, or the knowledge that it is intended to establish, is important and that it does warrant instructional support. Even so, the strongest contributions of this report and the research it synthesizes may comes less from their affirmation of that conviction than from the information they yield with respect to how best to help children learn about reading and writing most easily and usefully.

Opinion is deeply divided on the value of studying preschool predictors of reading or writing success. A major objection is that such studies tend to categorize assessed knowledge and abilities as "present" or "absent." Yet, reading and writing are enormously complex. Neither literacy nor any of the knowledge and processes that support it erupt abruptly. Literacy is a continuously developing skill. A second and related objection is that people may use the measures of such research to classify the promise, potential, or "readiness" of entry-level readers, as well as to set expectations and design instructional opportunities for them accordingly.

Strong arguments are also offered in favor of research on preschool predictor variables. After all, how else can we discover what sorts of preschool knowledge and experiences are most supportive of literacy learning? How else can we discover which young readers need special help and what kinds of help they need? Further, if we can't answer these questions early, the only other option is to wait until the children are demonstrably having trouble -- but waiting is terribly expensive. It costs time that could otherwise be spent on progress and, worse, among the children, it costs a personal disappointment that could otherwise be invested in bright-eyed striving.

Perhaps, if no such studies had ever been undertaken, these countering arguments might spell a philosophical draw, an investigative paralysis. As it happens, identification of predictors of preschoolers' eventual success in learning to read has long been an active area of research. Indeed, the very factors whose investigation might be considered socially most threatening have already been examined many times over. Among these are mental age, IQ, parental education, affluence, handedness, perceptual-motor skills and styles, and dialect. Significantly, and only through careful, disciplined, and sophisticated investigation, researchers have demonstrated every one of these measures to be a weak or remote predictor of children's reading success. By remote, we mean that they may correlate with direct factors but they themselves are not causal. In contrast, this work has served to identify three powerful sets of predictors. Categorically labeled, these predictors are knowledge about letters, linguistic awareness, and concepts about print. Importantly, each of these categories of predictors is directly derivative of children's experience with and understanding about written language.

The first powerful category of predictors is children's familiarity with the letters of the alphabet. Can they name them? Can they recognize them? Can they print them? Beyond global correlations, it has been shown that learning letter names frequently turns spontaneously, or at least easily, into interest in their sounds and in the spellings of words (Chomsky, 1979; Mason, 1980; Read, 1971); that knowing letters is strongly correlated with the ability to remember the forms of written words and the tendency to treat them as order sequences of letters rather than holistic patterns (Ehri, 1986, 1987; Ehri & Wilce, 1985); and that not knowing letters is coupled with extreme difficulty in learning letter sounds (Mason, 1980) and word recognition (Mason, 1980; Sulzby, 1983). Notably, measures of letter familiarity are losing their predictive potency in large sample investigations because so many children (thanks in large measure, no doubt, to Sesame Street) now know their ABC's on first grade entry (Durrell & Catterson, 1980; cited in Chall, 1983b; McCormick & Mason, 1986; Nurss, 1979). Yet preschoolers' basic familiarity with the letters of the alphabet is still found to be markedly weak in communities with a profile of relatively poor literacy success (McCormick & Mason, 1986; Masonheimer, 1982).

The second group of strong predictors of preschoolers' eventual success in learning to read consists of measures of their linguistic awareness and especially of their basic awareness of the word and sound structure of spoken language. Are the children aware that language comprises separately speakable, meaningful words? Are they aware that words in turn can be broken up into one or more syllables? Are they aware of the sounds of syllables? Can they detect or generate rhymes? And are they aware that syllables themselves comprise phonemes?

How can a teacher meaningfully allude to words or sounds where his or her students are unaware of their existence or nature? One way or another, each of these types of linguistic awareness is presupposed in the structure and dialogue of beginning reading instruction. Yet, within this category, it is preschoolers' awareness of phonemes (the speech sounds that correspond roughly to individual letters) that has been shown to hold the most impressive predictive power, statistically accounting for as much as 50% of the variance in their reading proficiency at the end of first grade (see, e.g., Blachman, 1984; Juel, 1991; Stanovich, 1986).

Indeed, faced with an alphabetic script, the child's level of phonemic awareness on entering school is widely held to be the strongest single determinant of the success she or he will experience in learning to read and of the likelihood that she or he will fail. Measures of preschoolers' level of phonemic awareness strongly predict their future success in learning to read, and this has been demonstrated not only for English but also for Swedish (Lundberg, Olofsson, & Wall, 1980), Spanish (deManrique & Gramigna, 1984), French (Alegria, Pignot, & Morais, 1982), Italian (Cossu, Shankweiler, Liberman, Tola, & Katz, 1988), and Russian (Elkonin, 1973). Measures of schoolchildren's ability to attend to and manipulate phonemes strongly correlate with their reading success all the way through the twelfth grade (Calfee, Lindamood, & Lindamood, 1973). Poorly developed phonemic awareness distinguished economically disadvantaged preschoolers from their more advantaged peers (Wallach, Wallach, Dozier, & Kaplan, 1977), and has

been shown to be characteristic of adults with literacy problems in America (Liberman, Rubin, Duques, & Carlisle, 1985), Portugal (Morais, Cary, Alegria, and Bertelson, 1979), England (Marcel, 1980), and Australia (Byrne & Ledez, 1983). Indeed, among readers of alphabetic languages, those who are successful invariably have phonemic awareness, while those who lack phonemic awareness are invariably struggling (see, especially, Tunmer & Nesdale, 1985).

Given the indication that so many children lack basic phonemic awareness, on the one hand, and that phonemic awareness is truly critical for learning to read and write an alphabetic script, on the other, what are we to do? A number of studies demonstrate that children's awareness of phonemes can be effectively awakened and refined through instruction (for reviews, see Adams, 1990; Truch, 1991). Programs of games and activities designed to develop preschoolers' phonemic awareness result in significant acceleration of the children's subsequent reading and writing achievement (e.g., Ball & Blachman, 1991; Bradley & Bryant, 1983; Lundberg, Frost, & Peterson, 1988; Wallach & Wallach, 1979, 1980). In view of the evidence that phonemic awareness is both so widely elusive and so critical for learning to read and write, it would seem wise to provide such instructional support to all children (Tunmer, Herriman, and Nesdale, 1988). After all, this is not hard to do, and it is just too risky not to.

True, phonemic awareness can be programmatically developed, and with dramatic success. Yet, while few children to date have participated in these programs, most have and do learn to read. In the absence of such preschool support, where does phonemic awareness normally come from? As it turns out, the best predictor of a preschooler's phonemic awareness seems to be how much she or he has already learned about reading (Wagner & Torgeson, 1987). Moreover, ethnographic studies document enormous differences in preschoolers' exposure to print in their homes, which brings us to the third category of powerful predictors: preschoolers' general knowledge about text.

Directly assessed within this category are such indicators as, for example, whether a child knows which is the front of a book and which is the back, which way to turn the pages, whether the print is rightside-up or upside-down and whether it runs left-to-right, whether the words of the story are conveyed by the pictures or the print, and whether the print represents words and letters. Collectively, they are powerful predictors precisely because such knowledge is missing in so many children. These measures, moreover, are proxies; they are simple, surface reflections of children's experience with text.

Sharing books with children is broadly accepted as the single most important activity for building the knowledge and attitudes that they will eventually require for learning to read (see Goldfield & Snow, 1984). Sharing books with children serves to introduce them not only to the nature and workings of written language but also to the pleasures, information, and ideas that it holds. Beyond that, reading with children is found to provide an incomparable forum for developing language, vocabulary, and literary modes of thought and understanding (Snow & Ninio, 1986). Happily, then, in American homes where storybook reading occurs with appreciable frequency, it tends to occur with great regularity, averaging slightly over one session per day (Heath, 1983; McCormick & Mason, 1986; Whitehurst et al., 1988). A child who enjoys 30 to 45 minutes of storybook reading per day across the preschool years will accumulate 1,000 to 1,700 hours of storybook experience -- one-on-one with her or his face in the book -- across the six preschool years. Add to this reading, writing, and language activities in preschool, regular doses of Sesame Street, time spent fooling around with magnetic letters on the refrigerator or playing word and "spelling" games in the car, on the computer, with crayons, and so on, such children will also have experienced several thousand more hours of literacy preparation before entering first grade. Upon this base and with the continuing help of peer pressure and parental support, the first grade teacher will be asked to teach these children to read. In this endeavor, he or she is unlikely to spend more than two hours per school day, or more than 360 hours over the course of the year. And, even during these hours, the teacher's attention will necessarily be divided across twenty or so students. Nevertheless, and not surprisingly, the teacher will generally succeed.

In contrast to these children, ethnographic research documents that there are many others who enter school with very little literacy preparation. For example, in a home study of 24 preschoolers in a neighborhood with poor school success, Teale (1986) clocked average storybook time at less than two minutes per day for a total of about ten hours per year. Moreover, these events were very unevenly distributed. While storybook reading occurred four or five times per week in three of the homes Teale studied, it averaged little more than five times per year across the others. While storybook reading averaged 26 minutes per day for one of these children, it averaged less than four hours per year across the other 23. Extrapolating once more, we can estimate that by the time these children enter first grade, their home experiences will have prepared them with an average of roughly 25 hours of storybook reading. Teale's study indicates further that, relative to their well-prepared peers, these children will also be short thousands of hours of other sorts of literacy experiences. Can we expect their first grade teacher to make up for those differences in 360 hours of one-on-twenty instruction? And for those children who have barely even seen a book before, we may further ask, "Why would they even try to catch up?" "What is school reading about?" "What is it for that is of any value or application in their own, very real worlds?" And yet, there are many, many teachers and children in this very situation.

In all, a child's success in learning to read in the first grade appears to be the best predictor of her or his ultimate success in schooling as well as of the events and outcomes that correlate with that. Yet, across the literature reviewed in our report, children's first-grade reading achievement is seen to depend most of all on how much they know and care about reading before they get there. In a way, this conclusion seems disheartening; it seems somehow to beg the American Dream. In another way, however, this conclusion is heartening. Differences in reading potential are shown not to be strongly related to poverty, handedness, dialect, gender, IQ, mental age, or any other such difficult-to-alter circumstances. They are due instead to learning and experience -- and

specifically to learning and experience with print and print concepts. They are due to differences that we can teach away, provided, of course, that we have the knowledge, sensitivity, and support to do so.

Before formal instruction is begun, children should possess a broad, general appreciation of the nature of print. They should be aware of how printed material can look and how it works, including that its basic meaningful units are specific, speakable words and that its words are composed of the letters. Of equal importance, they should have a solid sense of the various functions of print--to entertain, inform, communicate, record -- and of the potential value of each of these functions to their own lives. To learn to read, a child must learn first what it means to read and that she or he would like to be able to do so. Our classrooms, from preschool on up, must be designed with this in mind.

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Parents, Children and Literacy: Linking Literate Events Across Sociocultural Contexts

Vivian L. Gadsden

Considerable attention over the past 25 years has been given to the study of family and school as educational institutions. Much of the early work was in response to the educational opportunity initiatives that focused on children from African-American families or low-income homes (Hess & Hollaway, 1984). In describing the role of parents and families, particularly families for whom the federal initiatives were intended, the studies emphasized what researchers labeled discontinuity between family and school life, i.e., family-specific characteristics that created problems for children attempting to make the transition from home to school (Gadsden, 1990; Laosa, 1982).

Since the 1960s, research has continued to highlight the importance of parent participation in children's early literacy experiences, the value of literacy, and positive connections between literate events at home and at school (Epstein, 1987). Only recently, however, has research or practice focused on the family as the center of educational change or have programs engaged parents in their children's early literacy experiences (Adams, 1990; Lee, Liaw, & Schnur, 1989; Allen & Mason, 1989). What neither research nor practice has addressed effectively, despite enormous effort, is how to broaden the role of educators and educational institutions to assume a proactive role in sharing with parents the responsibility of developing literate abilities, establishing and sustaining communication and interaction between the parent and the school, and ensuring the literacy socialization of children, which often falls under the aegis of early educational programs such as Head Start.

This paper is based on interview and observational data from a study involving parents and children in Head Start. The findings are also informed by three studies that examine literacy development within families in two cultural groups, three geographic locations, a range of ages, and sometimes distinctive social histories and attributions to literacy and schooling. The purpose of this paper is to report not only findings from the study but also what researchers have learned about how to ensure social and cultural continuity and promote notions of access to literacy, how literacy is developed and used by low-literate parents and their children, and what linkages parents and their children make among literate events within school, family, and community contexts.

METHOD: The informants in this study were 24 Puerto Rican mothers and their children. All of the informants participate in a Head Start program in Philadelphia. Mothers range in age from 21 to 42 years and have an average of 2-3 children. For approximately 65% of the families, all of the children have attended this or some other Head Start program. All of the mothers, except one, were born in Puerto Rico. Half of the mothers and all of the children are conversant in English, and 22 of 24 can read and write in Spanish. The average number of years in school is nine. More than 75% of the families include a father or other male acting as father or provider. The typical family configuration consists of two parents or adults serving in the role as parent, two to three children, and often a grandparent. Approximately 25% of the families include other relatives (e.g., sisters, brothers, uncles, and aunts), or provide transitional residences for friends from Puerto Rico who are seeking employment in Philadelphia.

The primary instrument was a family household protocol that focuses on parent-child literacy behaviors and interests. The protocol consisted of questions focusing on beliefs and attitudes toward literacy and home practices around book reading and other literate activities. Materials included: 1) traditional children's classics; 2) books about diverse cultural groups other than African-Americans and Latino-Americans; and 3) books about and by Latino-Americans, specifically Puerto Ricans, and African-Americans. A variety of books, 35 or more, were available at each meeting, and parents and children were encouraged to take the books home. Later in the program, each parent applied for and received a library card, which was used to borrow books from the library biweekly. Other materials included journals and self-made storybooks.

The pilot program consisted of 12 sessions that lasted two to three hours per week. In addition, interviews were conducted with parents, children, and other family members. At the first meeting, the research team and a Head Start staff member engaged parents in discussions about their literacy and book reading interests and those of their children. Each parent was asked to take a book home and, either through reading the words in the book or referring to and talking about the pictures, discuss the book with the child. At subsequent meetings, the session was divided into two parts and structured around a combination of parents' expressed needs and interests and current approaches to adult literacy. For the first hour, parents were asked to demonstrate the book reading, interaction, and modeling behaviors (e.g., talking and listening) that had occurred during the week between themselves and their children as they engaged children in book reading and storytelling. Other parents and project staff used these demonstrations to explore a range of approaches that the parents already use or could use in the future to improve their own reading and to encourage their children to read. Parents were also encouraged to share their stories in the language that was most comfortable for them -- either Spanish or English. More than half the parents were capable of and willing to speak in English. The research team, some of whom have facility in Spanish, took notes from these discussions while Head Start staff often translated.

A variety of strategies were developed over the course of the project. For example, rather than relying on commercial printed texts, parents and children developed storybooks around the experiences of the children and parents and within the families. Parents were engaged in discussions about how literacy is used in a variety of contexts and what their specific goals are for their children and themselves around literacy. In particular, the research team was interested in how literacy is used to generate interaction within families, how it may expand interaction, or how it may create problems within families.

The Parent-Child Learning Project is part of a study that is based in a Head Start program serving 500 African-American and Puerto Rican families. The Head Start program in which the project is based was designed with a multicultural focus and is located in an economically depressed area of Philadelphia. The composition of the program reflects the composition of the neighborhood, which consists of large numbers of unemployed or ungainfully employed adults. Despite many social and economic problems endemic to the neighborhood in which the Head Start program is located, the program has thrived, serving as a place of support for parents and children. Most importantly, it is one of only a few such programs in this community. While literacy programs are available throughout the city, the problems of access to programs -- a problem that plagues the field of literacy -- is most pronounced in this community, where people are discouraged from engaging in programs because of language, lack of information, fear, intimidation, or a combination of these.

DISCUSSION: Three research questions frame the study: 1) What cultural factors affect literacy learning within homes and families, and how do they affect the engagement of adults and children in literacy activities within and outside the home? 2) What literate activities are most valued within the family, and what is the relationship between these activities and literate events in other contexts? and 3) In what ways do parents transfer their attitudes and beliefs about literacy to their children?

What cultural factors affect literacy learning within homes and families and how do they affect the engagement of adults and children in literacy activities within and outside the home? Eighteen of the 24 mothers and their children in the families that were studied are in low decision-making participation homes where both mother and child have specific roles and expectations attached to

their roles. However, within the context of providing and seeking assistance for their children, husbands seemed to expect their wives to assume the primary role, even when they had only low literacy skills in English. Mothers were responsible for enrolling children in school, talking to teachers, buying the appropriate educational materials, and generally providing for the children's educational needs.

From the outset, parents expressed their concern that their children were losing much of their culture once they left the Head Start program and entered kindergarten. Many of the mothers stated that they wanted to be able to reconcile the need to speak English with the importance of cultural heritage. All wanted to improve their own reading and writing, primarily to interact with their children around school issues or to be more active in their children's education. Parents and children were most interested in materials that depicted Latin life positively. Parents expressed a preference for materials that portrayed boys and girls in traditional roles, but were willing to accept the fact that girls could have careers, if it were possible to reconcile a career with a family. Parents exposed their children to print; they often used school models to teach their children. Twenty-two of the 24 showed a preference for books about their own culture first, for other cultures second, and for traditional children's texts (often described as "classic children's books") third. They stated that they especially liked books that presented the text in both English and Spanish.

The parents were asked to describe their children's interests. In 14 of the 24 cases, the parents' observations about their children's interests and abilities were borne out by our observations. That is, they were realistic and knowledgeable about the level of materials that should be used with the child, carefully selecting some books and rejecting others, and expressed preferences often for small books that children could manipulate or books that helped them explore a particular problem with a child.

What literate activities are most valued within the family, and what is the relationship between these activities and literate events in other contexts? Sixteen of the 24 parents in the program stated that literacy is the means to their children surviving. Because the parents were mainly volunteers, however, it is likely that those who participated in the program were the most motivated. Each of the 16 parents stressed the importance of reading, stating often that they read to their children and were proud that their children liked to read. Others stated that they wanted their children to perform well in school. Less evident was whether parents thought that it was possible for their children to achieve in school, although all expressed concern about problems such as crime and its impact on the children.

All of the 24 parents credited Head Start with getting their children excited about stories. Their children's excitement about learning was the primary motivation for parents wanting to improve their own literate abilities. As many of the parents prepared to send their children to kindergarten, they expressed interest in improving their own English-speaking skills in order to help their children and eventually get a job.

The connection between literacy at home and outside the home was evident as parents recounted their attempts to obtain information and their feelings of helplessness because of the language barrier. The most frequently cited problems were getting assistance and explaining their needs to native English speakers (21) and feeling unsure about whether they have been understood (16). Twenty-two of the 24 described or demonstrated specific reading and writing problems in trying to understand text, remembering the important parts of a reading exercise (18), and explaining the main ideas in a story to their children (21).

In what ways do parents transfer their attitudes and beliefs about literacy to their children? Parents in this study conveyed the value of literacy and learning to their children by purchasing reading materials and stressing the importance of literacy. However, all of the 24 parents seemed less sure about whether they believed their children should have to give up their culture to become literate in school-like activities, what they would have to give up, or what the outcome might be in terms of their children's investment in or estrangement from the Puerto Rican community. This is no small issue, and it often puts parents, teachers, and children at odds. Parents expressed the strong desire for their children to be successful, bilingual, and proud of their heritage.

CONCLUSIONS: Consistent with the work of McGillicuddy-De Lisi (1984), information from this study suggests that parents make decisions about literacy activities and hold beliefs about access to literacy that are developed from and based on the relationship of the activities to cultural practices, respect for social and cultural structures within and outside the home, and integration of the goals of instruction and the social and cultural realities of the community. Literacy had cultural and community-specific meanings, and was seen as the medium to success.

What is implicit from the interviews is the role of literacy as a social enabler, empowering children and adults to participate and utilize the school-like nature of literacy and build on the broad contexts for literacy learning and use. The implications for educational programs, such as Head Start, are embedded in the need for new frames in developing literacy instruction to engage parents and children in thoughtful literacy activity that builds on their social and cultural contexts for learning. Parents and children define access in socially contextual ways that appear to be present-bound, but may simply be limited by an inability to reconcile the need for the cultural and social need for learning and the intellectual or social expediency of literacy.

The implications for policy are in the importance that the parents attach to Head Start and the hope they assign to this context as a "place for knowing" and a place where assistance for additional help may be sought. The role of Head Start as a community agent was highly rated by all parents, irrespective of their level of literacy.

For practice, the implications of this study are rooted in the linkages that educational institutions can help parents and children make across multiple contexts. If literacy is constrained by traditional school-like practices only, so is the possibility of creating opportunities to work with parents, understanding the social and cultural features of the family, and reconciling the interplay

between contextual strengths and constraints and family members' beliefs about what literacy means, how it can best be achieved, and how it can be most effectively used within their daily lives. Therefore, it would be a much better use of resources and energy to identify ways that educators can acquire information about the social and cultural experiences of family learners so that mutual exchange of such information becomes a natural venue to building literacy continuity around families' cultural meanings and values.

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Parents and Teachers: A Comparison of Attitudes and Perspectives About Literacy Growth

Peggy Daisey, Ann D. Murray

The purpose of this study was to investigate the perspectives of parents and teachers regarding their roles in literacy growth of children and to explore the relationship between home and school. The significance of the study stemmed from three major concerns: the universal need for high levels of literacy, the reality of cultural differences between home and school, and the need for parent and teacher cooperation. The major research questions concerned the differences and similarities between high- and low-SES groups, parent and educator groups, and ECE and K-3 teacher groups regarding literacy growth.

METHODS: Quantitative data were collected from 170 (plus 17 homeless, battered, and paroled) parents, 71 K-3 teachers, and 65 early childhood educators. Questions were asked about the perceived roles of parents and teachers in literacy growth and the prevalence of literacy-related activities in the home and in the classroom. In addition, 67 individuals participated in 90-minute focus groups consisting of three to eight individuals in the following categories: high-socioeconomic status (SES), non-African-American parents, low-SES non-African-American parents, low-SES African-American parents, early childhood educators (ECEs) who taught mostly low-SES students, ECEs who taught mostly high-SES students, K-3 teachers who taught mostly high-SES students, and K-3 teachers who taught mostly high-SES students. The questioning route of the focus groups included questions about participants' likes, dislikes, and thoughts about a variety of children's books. Other questions concerned their choice of books for different ages of young children, their memories of books and of being read to as children, their thoughts about their experiences with reading and schooling as children compared with their children's experiences today, their perception of teachers' and parents' role in literacy growth, and their recommendations for family literacy program directors in regard to recruitment, retention, and instruction of families.

Analyses of the quantitative data (using chi-square) yielded significant differences between high- and low-SES parents, and between parents and teachers on a number of measures. Themes that emerged from the quantitative and qualitative data include: definitions of reading, the teachers' role in literacy growth, the parent's role in literacy growth, and attitudes toward schooling. High-SES participants tended to promote interaction through reading. Coleman and Hoffler (1987) believe that a family's social dynamics may influence reading achievement. They suggest that family social capital (the relations between family members) must be intact in order for children to benefit from a family's human capital (parent's education and economic resources). Disadvantage is enhanced when family members are not willing to share their social capital. However, even when human capital is low, families with social capital can provide support for achievement. Almay (1949) stresses that the quality of parent-child interaction is related to reading development, and that this includes indicators such as a willingness to answer questions, as well as playing with and teaching children. Taylor and Strickland (1986) believe that sharing storybooks gives parents and children an opportunity to explore commonplace events and extraordinary happenings. Pellowski (1987) believes that it is beneficial to acquire knowledge about reading within a family setting. This is because family members who have a unique interest in a child may fill in the gaps children might have

in their perception of how the world works, and realize that there is always something else to be learned about the familiar. In addition, it is one of the ways in which parents can show their enjoyment of learning through the discoveries that they share with their children (Taylor and Strickland, 1986).

Although educators spoke more often than parents of relating reading to the life of a reader, educators did not mention prior knowledge of students who were culturally different. Minority parents worried about cultural differences between home and school. Hansen and Hubbard (1984) found that readers do not consistently see connections between what they read and what they already know. As long as children had the same cultural background as the teacher, connections were likely to be made, but if the students' background differed from the teacher's, opportunities to facilitate connections did not seem assured. In contrast to the discussion that educators encouraged, parents promoted less questioning by children and seemed to have less discussion.

A low-SES mother discouraged discussion during a story because she felt it was important for school success for her child to sit through a dress rehearsal of a school storybook reading time, and she thought she knew what teachers wanted. High-SES participants enjoyed and promoted reading as a means of stimulating creativity. Sulzby and Teale (1990) found that nonmainstream parents who do read aloud regularly to their children do not elaborate information in a way that is thought to contribute to literacy acquisition. Likewise, Heath (1983) noted that it was not the absence of early literacy experiences of low-SES children that differentiated them from mainstreamed children, but infrequent exposure to high-quality, print-related learning.

Teachers participating in the focus groups looked critically at an author's message. Similarly, high-SES participants seemed empowered to argue with authors. High-SES participants were able to reason about a story. In contrast, low-SES participants did not notice stereotypes, such as the absence of females. Perhaps they were more accepting of their roles. Moreover, low-SES participants seemed less concerned with creativity and reasoning and more concerned about control. Low-SES participants seemed to focus more on literal level instruction than high-SES participants. The idea seemed to be that what was concrete (for example, neat letters on a page for displaying on the refrigerator door) demonstrated success more than the intangibility of creativity.

Even though literacy may be part of everyday routines, such as paying bills and reading the mail, children at risk and their families tend not to associate reading and writing with work-related or leisure-time activities, but consider literacy to be a school activity that has little value and thus merits little attention in the out-of-school world. These observations from focus group participants seem to fit well with a trend for low-SES questionnaire respondents to read to teach children skills. Between parents and educators there was mixed opinion about reading for skills, but there was a trend for more parents than educators to stress reading for skill acquisition. Educators looked upon teaching reading skills less favorably than did parents; for example, a K-3 teacher spoke of her dislike of skill worksheets. Interestingly, more educators than parents discussed individuals who disliked reading. This may in part account for the result that more educators read to children for enjoyment. Parents spoke less frequently than educators about acquaintances who disliked to read.

High-SES participants could see beyond reading as a decoding process and spoke of its therapeutic properties. This is consistent with the quantitative data which revealed that high-SES parents and educators read books about realistic issues, such as fear of the dark or going to the dentist, more often than low-SES participants.

There were a few poignant stories about reading as therapeutic among low-SES participants. The first was a comment from a battered mother (who had a large black-and-blue mark on her ankle), who was living in an emergency shelter with her two small children. The first comment was in reference to The Lion, the Witch and the Wardrobe: "I like the lion [Aslan]. I just love the lion...Out of all the stuff of the Chronicles of Narnia, I like the lion, because...the representation of the lion was one of those, you could curl up with this lion every night and forget about your troubles, this lovable lion."

Researchers are documenting what these parents have already discovered; there is a lot to like about reading. Regularly sharing books provides laughter, calmness, security, intimacy, escape, and celebrates family life. It is predictable, imaginative, social, satisfying, and ends in cuddles. A storybook reader offers a child the best gift possible- time. Storybooks give us new hope. The fairy tale advises, "Take your courage in hand and go out to meet the world head on." Werner (1984) reported that children who are referred to as "resilient," that is, who weather extremely stressful homes and develop stable, healthy personalities, are often well-read. Moreover, storybooks may provide a reader with a strong medicine -- humor. Norman Cousins(1989) describes his belief that hope is biologically powerful. He offers examples of experiments that provide evidence that positive emotions can act as a buffer against the immunological effects of stress -- possibly reducing the risk of disease. When Cousins is asked by patients where he finds things to laugh at, he replies that his favorite sources are books.

ECE and K-3 teacher comments often indicated that they were focused on the age of their students. For example, the two groups of teachers differed in that ECEs were more concerned with the attention span of a child than were K-3 teachers, possibly because younger children had shorter attention spans and it was necessary to keep this in mind in order to plan successful lessons. All K-3 teachers considered imagination as part of the reading experience; imagination was not mentioned by ECEs, perhaps because they believed that young children had a great deal of it. Illustrations were more important to ECEs than to K-3 teachers. K-3 teachers focused more on the story lines of books.

The topic of TV viewing was brought up in connection with programs that promote reading readiness skills or programs that depict stories found in children's books. Low-SES parents were more interested in TV viewing than were high-SES parents. Although low-SES parents recommended Sesame Street, Reading Rainbow, Eureka's Castle and National Geographic Specials, watching TV

is, nevertheless, a passive, dependent activity. This observation is consistent with the trend for low-SES parents to watch more TV with their children than do high-SES parents. Too much television viewing may put children at an academic disadvantage.

Parents (especially low-SES parents) tended to push children to learn. This tendency by parents to apply pressure was related to viewing reading as a process of decoding and skill acquisition. Educators (especially those who taught low-SES students) noted this pressure. Many professionals also worry about parental pressure on children to learn.

A goal of a family literacy program needs to be to help participants redefine reading from a decoding, school-based practice to a social, therapeutic process that can occur at home as well as in school. Another goal of a family literacy program needs to be promoting a family's social as well as emotional capital. This is to say, a family's relations between family members must be intact in order for children to benefit from a family's human capital -- parent's education and economic resources.

Family literacy meetings may provide an on-going opportunity for parents and educators to meet in order to change their definition of reading and attitude toward school. (These meetings could be videotaped for parents or educators who could not attend.) The plan for the family literacy meetings might include: 1) Bringing a short passage from some form of print that they have enjoyed reading; 2) Reading to and discussing with parents and educators various topics of interest; 3) Having parents and educators keep journals in which they create analogies about the meeting's discussion in comparison to situations with their children or students. Thus, through these opportunities to meet, parents and educators may come to know each other and possibly change their definition of reading (or schooling). Opportunities like these need to be offered in order for parents and educators to understand that literacy enhancement may nurture the cognitive, social, and emotional development of children, parents, and educators. Ultimately, the feelings and reactions of readers are more important than book reading itself. Thus, parents and educators can get to know their children, as well as each other, through time which is set aside for such literacy events.

A new definition of reading, however, is just the first step, as Pat Berg, Dewitz, and Henning (1984) recognize with their preservice teachers. They note that it takes a while to assimilate and to accommodate new ideas into practice. In addition, they suggest that there is risk associated with trying something new, such as discussing a story with a child rather than reading it straight through. Furthermore, program directors need to understand that every parent or educator may not be comfortable enough to go outside the status quo, and that new ideas may require a period of incubation before action is taken. Regardless, program directors may provide parents and educators with the same reading interventions that they recommend to improve the reading and writing of children.

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Discussion *Jana Mason*

There seem to be conflicting views in this session about emergent literacy and the role that parents play in literacy. Adams, for example, presents the view that phonics really is a necessary part of early instruction because it makes the alphabetic system understandable, is useful for word recognition, and is best given in the first grade. However, phonics instruction by itself presupposes some other knowledge and understanding, which comes before the children arrive in school -- and there's the rub. What we apparently need is preschool instruction, which needs to include support for literacy development, because what children know about reading when they enter first grade is a very strong predictor of their later reading ability. Adams cites things such as letter knowledge -- linguistic awareness of words, syllables, and phonemes -- text awareness, and that story book reading may be a very powerful way to arrive at that early understanding. And yet, she also provides us with the tantalizing idea that families from low-SES communities, typically, or apparently, do little reading to the child. So we have a serious problem, perhaps.

Daisey presents some conflicting views of literacy among high- and low-SES families. For example, reading is a stimulus to conversation. It is an avenue for thinking and reasoning among high-SES families. Reading is decoding, word recognition -- pushing children to learn. It seems that if reading is decoding, then that would foster phonics and lead us to the right answer. But that doesn't seem to be what is happening. Daisey says that low-SES parents believe that reading is decoding, and that they use low levels of thinking in trying to read to their children, while high-SES families use it as a stimulus to conversation, an avenue for thinking and reasoning.

I think that Gadsden gives us some way out of the conundrum that we are in. She studied low-SES Puerto Rican families. She admits, however, that these may be model families, and that when she gets into the larger study, we may find different situations. But these parents do want to read to their children. They do it. Literacy is the key to children's survival. They do purchase books. They do perform activities to try to foster literacy. Perhaps here is part of the inkling of the solution or explanation. They use school models to teach literacy to their children in the home. One premise for an understanding of reading is that the family is the source of knowledge and practice, and is an effective social fabric for learning. She points to interest in reading as the clue. Another premise to reading is that the family needs to learn school-based views of literacy. She points to achievement and test gains as that model for reading. Are these alternative views, that have no place together? Perhaps we don't need to think of these as either/or models; both have a place.

In Adams' work, we primarily have that second view -- that the family needs to learn about school-based views of literacy to attain achievement test gains. However, we don't want the family to view school literacy in this narrow perspective of reading as decoding, as word recognition, as letter-sound correspondence. Reading also involves interest and thinking, and figuring things out. Look at Gadsden's two-premise view of literacy, that it's important for families to understand both how to prepare their children for literacy and how to make literacy interesting and enjoyable...I guess fun is as good a word as any. It is important for children to want to read, not just to know that they have to learn to read. There are, I believe, a number of hurdles to achieving this solution.

I think that we have, in our schools, a large number of teachers with very narrow, rigid views about what should be taught. Gadsen hinted at this with her comments about the families' appreciation of the Head Start schooling. But they were worried about going into the public schools. There is apparently too much of a gap for the families; the teachers aren't reaching out enough to the families to make it easier for the children to become a part of the public school.

I'll tell you a brief story about that. I went to a town in Cordova, Washington, where there were a large number of migrant families, and visited the preschool center, which was run primarily by the families themselves. It was organized so that the families actively participated in this preschool center. They were there as secretaries, as people who greeted visitors, as aides, and there was at least one teacher from the community. They were involved in the education of their children. I asked to visit the public school. I wanted to see what the kindergarten was like, where these children were going to be the next year. There I found a teacher who was tri-lingual. She knew Spanish. She also spoke an Asian language (there were some children from Thailand) and English. So she was putting words up in three languages. That was really quite fascinating in this little town, to have a tri-lingual teacher. But there were a lot of absences. And she said, "It's hard to get the kids to come to school." I spoke to the principal, who said, "Well, those families don't participate. They're not involved." Yet, on the other side of town, those families were very much involved. That's one of our hurdles to literacy acquisition. We have to make the transition possible. The second problem is parental insecurities about how to help. Perhaps they emphasize decoding and word recognition because that is what is sent home. The work sheets are sent home. Books are not sent home.

Another story. I visited a Head Start family in a major metropolitan city. I was shown around the very nice Head Start program that they had, and was looking at some of the books they had in one of the classrooms. The director said to me, "Tell me, what do you think about these books?" I went into a list of problems about these particular books. They weren't appropriate for these little children. They weren't good books. And she got a little bit nervous, and then she brought the teacher over and asked her about them. And the teacher said, "Well, there are no good books in the library. Head Start doesn't have a library for these children. When I go to the Public Library, I have to wait three months to get a book. Here is a good book." And she showed me -- yes, indeed, it was a good book. "But I had to wait three months to get that book." And how about sending books home? "No, in our school system, no child is allowed to take books home until the middle of first grade."

Panel 116 PARENT INVOLVEMENT IN HEAD START IMPACT ON THE PARENTS

Chair: **Ura Jean Oyemade**; *Discussant:* **Dominic Gullo, Aline Garrett**

Black Father Involvement in Head Start *Lula Beatty*

This was a demonstration project, and was not a true research study from its inception. But as part of that demonstration we had to do a needs assessment. Today, I'm going to do two things: the first is to briefly describe the project itself, and the second is to report on the needs assessment because we thought that it provided us with some interesting data that would be useful to people in the field.

In the mid-1980s we received a grant to do a demonstration project to increase Black father involvement in Head Start. This was done in conjunction with the grantees in Washington, D.C., where we are based. They were concerned about the low level of father involvement in their programs. This was a national concern, because most educational centers, whether they are Head Start or not, do not have a high involvement of fathers. The overall goal was to increase Black father involvement. One way to do that was to involve a number of people in the community and parents in this process. We had an advisory committee that was comprised of people from the university, Head Start parents, and Head Start staff. Later, we formed a Black father symposium committee made up of representatives mentioned above and others in the community who were also interested in this issue.

We started addressing the issue of Black fathers and Black men in general. The institute where I work has done a great amount of work on Black males and the status of Black males. That was the backdrop against which we could do the work. We wrote the proposal in conjunction with people from Head Start, on the grantee level. We thought we were all set. Once we got to implementation, though, we found that the centers had not been directly involved in what the grantee was doing! We then had to begin building the relationships that we thought were already in place. When we started talking to people at the centers, we found there were differences in perceptions of what father involvement is and what adequate father involvement is. There were some staff people who felt that father involvement was fine in their centers, and some who felt that it wasn't. We decided we had to do a needs assessment.

Previous research indicated that father involvement was low for a number of reasons: a lack of interest; difficulty in seeing fathers as people who could teach their children; negative attitudes on the part of others about the involvement of Black men; inconvenient timing of activities; lack of male representation in Head Start staffs; and lack of male-oriented activities within Head Start programs. We did a needs assessment to see if these factors were important, and then we added some others. We wanted to ascertain what the current level of father involvement in Head Start was at our centers. We wanted to identify the types of activities in which fathers did participate, assess attitudes towards father involvement, assess perceptions of barriers to father involvement, identify strategies to increase father involvement, and determine the interest and willingness of people to participate.

I will focus more on the assessment of perceptions of barriers to father involvement. One other caution is that within the needs assessment there was some background information we wanted that Head Start staff persons were reluctant for us to have. They did not want us to get any income data, and they expected that we would get a poor response rate to the needs assessment.

We did a needs assessment for staff and one for parents. We recruited Head Start parents whom we paid to do this. We had 29 staff members who anonymously completed their staff questionnaires. Of the 28 who indicated gender, just as the literature said, 96% were females; 61% were between the ages of 20 and 25; and nearly 30% had worked at the centers for less than a year. Thirty-eight had worked in Head Start or day care for six years or longer.

Staff members were surprised that 345 parents talked to us or gave us information; they thought we would get 50. Because 95% of the users of the centers were female-headed households, they did not think that we would get any fathers. We had expanded our definition of fathers and mothers to include the significant adult caretaker in the child's life. We therefore included grandparents or uncles. One hundred eighteen fathers responded. I want to emphasize how important this was for us, especially for the morale of the staff people. They saw this response to a not very rigorous or intensive search for parents. They said they didn't know where the fathers were! Eighty-five, or 72% of them, were the biological parent of the child. We had 206 mothers, which was not surprising, although we were very much gratified by the numbers who were willing to participate. You will see that there were a number of significant differences between the parents on such things as age, education, marital status, and relationship to child. There was not a significant difference in number of children, although fathers tended to have more children than mothers. Anecdotal things that came out in talking to the staff was that one of the reasons they were hesitant about using fathers was that sometimes the fathers would have more than one child in the center, or they thought that there would be a lot of conflict in trying to encourage fathers to come into the centers.

Frequency of participation: Parents were asked how often they participated in various program activities, and fathers, it was confirmed, were found to be less involved in activities than were mothers. The majority of fathers, about 43%, indicated that they never participated in program activities or participated only a few times a year. In contrast, most mothers were involved once a week or more, once or twice a month, or every two or three months. There were some socioeconomic differences based on gender. Although we are talking about trying to increase father involvement, we still had about 28% of fathers who acknowledged that their

participation was not that high, but some saw it as adequate. Everyone believed that father involvement was very important; everyone on the staff believed that it was very important, even though they had some reservations about the way it was implemented.

Ninety-seven percent of the staff indicated that mothers were more likely to be involved in center activities than were fathers. Forty-one percent rated father involvement as poor. However, a sizable number, 28% of the staff, rated father involvement as excellent. I think that this is something that we should look at. In terms of role expectations, some staff members felt it was adequate for a father to come in and participate in a parent policy meeting.

A debate ensued in our advisory group meetings concerning the promise of anonymity. We had to enforce that for staff members who completed the form, because some center directors got very annoyed at some of the responses their staff members gave us. Directors were concerned because they said none of their staff members are supposed to hold these kinds of views. Our position was that you need to know the kinds of views they are holding, especially those that interact with the children and parents.

We presented a list of barriers that we identified from the literature, staff members, and what we came up with ourselves. They were presented in random order. We looked at father factors, including disinterest, lack of knowledge and skills, availability, and appropriateness. We looked at mother factors, which were not facilitating: mothers do not encourage fathers to be involved with their children; mothers do not tell fathers about the importance of their input. Then we looked at program factors, structural factors, including a hostile and nonreceptive attitude, such as the preschool staff is unfriendly toward fathers. The interesting thing is that fathers essentially believed that father participation was low because mothers did not tell them about it, or did not encourage them to participate, or that there was something about the program. They were more likely to say it was a program function or a mother function.

Mothers said that it was a mother function, a program function, and a father function. The staffers said that it was a father factor or a mother factor. So you see, there are three groups with somewhat different perceptions. It is very interesting, in terms of significant differences, to look at father availability -- "fathers are absent from the home" -- which you will see mothers ranked as number one and fathers ranked as number six. Seventy percent of the mothers saw that as a barrier, as compared to only 41% of the fathers. I am not sure how to interpret that, because, on the face of it, it would seem that if you are not there it is difficult to participate. There is a big difference between the fathers and the mothers on that variable. After the needs assessment, when we started talking to fathers, some other issues came up. One was legal issues concerning fatherhood. Some fathers expressed feelings of conflict between what their rights were as fathers and the possible legal consequences of getting more involved. This was especially true for adolescent fathers.

We took all of the barriers that produced a significant difference and tried to see if there were any related socio-demographic factors. We found that there were quite a few. Availability was the big one -- the fathers' absence from the home. We found differences between fathers and mothers in education, age, marital status, relationship to child, and number of children. We tried to stress that even in a group that looks the same there is still a great deal of variation and diversity. Even in a low-income community, there is going to be diversity of opinion that can be looked at in the same way that we look at other groups. We are not sure if these findings are peculiar to Washington, DC. If you look at the number of men with more than a high school education, it may not be true in other parts of the country. We also found that Black mother involvement in Head Start was low -- because we asked for Black mothers -- and Black father involvement was extremely low in this sample. Parents and staff both agreed to it, so there is no disagreement between the staff and the parents on that. We found that Head Start staff was committed to the idea and value of parent involvement, even though they expressed some frustration and reservations about what parent involvement should look like or be about.

For parents, we found that the needs of low-income Black fathers and mothers in urban areas are great. Parents and families with multiple serious needs and problems, such as homelessness and drug addiction, are becoming a significant population. The staff is not trained to deal with that. What we are sure of is that Black fathers are interested in their children's development, and there were many people who did not believe that was so, even within the centers. This affirmation of interest and concern is important to recognize. It may not be evident in the behaviors that we looked at, but it certainly was there. Converting that interest to long-term commitment and meaningful parental behavior is a challenge.

One of the things that we were able to do through the Black father symposium committee was to get about 140 men to come out on a Saturday to talk about children. Men who came out were not professional men. Some brought their young sons with them. We had people who wanted that to continue. The interest is there, but a way to convert that interest into meaningful interaction within an educational program is something that all of us are going to have to address.

Head Start staff mothers and fathers differ in their perceptions of the causes of low father involvement. It is likely that they differ also in their attitudes toward and perceptions of the appropriate roles of the staff, fathers, and mothers, and these differences must be addressed. One of the things that we are doing at the Institute now is a study on perceptions of Black males' masculinity and sex roles. This will have a great deal of influence. We have been hearing lately about the decline on a lot of socioeconomic factors within the Black community and Black families in general over the last 10 or 15 years.

There is evidence in the child maltreatment literature that when economic pressures increase, you start seeing some ripple effects. This is what we are starting to see, and it's going to get worse for a while. We are seeing a lot of homeless children, homeless

families, homeless men. We are looking at how work is impacting on fathers' roles as economic providers, and how it impacts on their roles as fathers.

Another important resource is that the larger Black community is committed to many of the same goals as Head Start, and is responsive to collaborative efforts to achieve those mutual goals. Thus, within that Black Father Symposium Committee, for example, we had some groups that were willing to work. We have Concerned Black Men, which has a chapter in Washington, DC and some sororities and fraternities that were willing to commit time and resources to addressing the issue of father involvement.

RECOMMENDATIONS: 1) Review the expectations of the parent involvement component in view of parent needs and staff support and resources; 2) Develop parent involvement programs that are more cognizant not only of male interests, but also of child, family, and marketplace needs; 3) Continue the process of needs assessment by asking for continuous feedback from mothers and fathers. Initial family assessments may be a good start, but progress should be continuous. And family assessments may mean two sets of assessments for one child -- you can't always get it from what the mother is reporting; 4) Involve more men in other community groups and Head Start operations as staff, advisors, or collaborators; 5) Provide greater support, preferably in pay and also in resource support, to Head Start staff.

Parental Perceptions of the Impact of Head Start on Their Families *Rachel Lindsey*

Presented by Sadie Grimmett

An examination of recent reviews of literature concerning parental involvement reveals several effects on the program about which we can be fairly certain. For example, one of the most commonly accepted positive effects of parental involvement is on the cognitive and affective development of the child, and the parental activities related to these areas of child development. With the data coming from the Washington/Oyemade study, as reported recently, it is evident that parental involvement may also have positive effects on the economic and social sufficiency of the Head Start family. While the anticipation of this impact contributed to the structure of the parental involvement component as described in the performance standards, until now evidence of this effect has been sketchy at best.

Despite this evidence about Head Start's parental involvement, there is much that is not known about the effectiveness and productiveness of various Head Start parental involvement programs and activities. This lack of information is due not only to the limited research but also to the inconsistency of the results. One issue that may contribute to this inconsistency in previous studies is that some programs are possibly more effective with one cultural, sub-cultural, or socioeconomic group than another. Slaughter and Kooning indicate that these confounding variables are rarely considered in studies of parental involvement. They quote Bronfenbrenner as indicating that in an ecological approach to human development, "the properties of the person and of the environment, the structure of environmental settings and the processes taking place between and within them must be viewed as interdependent and analyzed in systems terms." Slaughter and Kooning assert that each of these factors should be considered in the design, implementation, and evaluation of parental involvement programs. By taking this ecological approach, the focus is not just on parental activities, but also on the family and community context in which these activities occur. An ecological perspective on parental involvement would lead not only to more effective programs but to more valid evaluative research as well.

One program that has attempted to consider these ecological factors is described by Winkelstein, citing research from Canada, Israel, and the United States, which indicates that there is a relationship between specific types of parents, parent-child and family activities, and specific types of impacts. She and the staff of centers with which she worked developed parental programs designed for individual parents. By interviewing parents and through the relationships established between them and the center staff, parental involvement activities were developed that addressed the specific needs and goals of the parents, the children, and thus the families as a whole. The outcomes of this clinical approach, though time-consuming from the parents' perspective, included increased participation and the indication that parents were definitely pleased with what they gained from their participation. The teachers indicated that they knew the families better and were thus more effective with them. The administrators stated that despite the individualized parental plans, important program needs were met. Wickelstein's research did not focus specifically on Head Start programs, yet it is clear that by taking this ecological perspective the needs of Head Start parents as well as the program itself can both be met.

Although grantees and delegate agencies, with the input of parents, develop a variety of specific activities that provide a means for parents to take an active part in all levels of the program, this parental input may be limited. According to a handbook for involving parents in Head Start, participation in the parental program should lead to positive effects in five outcome areas: effective parenting, self-esteem and confidence, family life, education of the parent, and employment. It is evident that the majority of parental involvement programs do not consider ecological factors in the design, implementation, and evaluation of their programs. Further, the Wickelstein study indicates that parents alone may not be able to articulate their goals and needs in a way that can be immediately translated into program activities. Despite Head Start's continuing emphasis on parental involvement through program activities, Washington and Oyemade report that research has failed to identify the most productive kinds of parental involvement activities. Key to identifying the most productive and beneficial activities is knowing to which activities parents give priority. Parent opinion of the worth of activities may in large measure determine the level of their participation, and thus the effectiveness of the activities.

Also important to this identification is the setting in which the parent participates. Clearly, some parental involvement programs are more effective in promoting participation than others, regardless of the activities themselves. Of interest is knowing whether parents' choice of activity changes depending on the type of program in which they participate. By using the parents' opinions of the involvement activities as evaluative evidence, it may be possible to improve parental involvement programs so that they may more effectively and efficiently contribute to parents' growth in the five outcome areas.

While helping to implement the Washington and Oyemade parent involvement study in Chicago, Lindsay designed a method of gathering data to assess parents' opinions about the programs in which they participated. These data were obtained to address the question, "What parent involvement activities did the parents view as being most successful for what aspects of personal and family development?" Thus, parents' opinions of the parental involvement program as it is implemented at their local Head Start center were introduced and included as a measure of the program's effectiveness. The Chicago sample was gathered from Head Start centers that were not affiliated with the Chicago public schools. The parental involvement coordinators for the three areas of Chicago -- north, south, and west -- were asked to evaluate the centers in their areas on the basis of four criteria in order to establish which centers held relatively few parental involvement opportunities and which had more. The four criteria were: approximate number of parents in the classroom in both volunteer and paid positions; number of non-classroom activities; amount of community involvement; and number of parents taking part in the agency. A subjective judgment based upon general impressions was made by the coordinators about whether each center was a high, medium, or low parental involvement center. From these activities, three centers were chosen -- a high-involvement center from the north and two from the south, one high and one low. The timing of the research did not allow for a center to be included from the west. The 83 mothers of the Chicago sample were involved with Head Start from 1 to 20 years. All were Black; 43% percent were single parents. The level of education ranged from less than a high school degree (7%) to a college degree or graduate work (7%). Twenty-three percent had graduated from high school, 52% had some college work or received a junior college degree, and 11% received a degree from a vocational school. The Lindsay Parent Activity Q-Sort was used. The objective of the Q-Sort was to begin to address the issue of the effectiveness of parental involvement programs by asking mothers their opinion of typical parental involvement activities. Specifically, the objective of the Q-Sort was to answer the following question: What activities do parents report as being effective for growth in the five outcome areas, and did the nature of the personal involvement program affect the parents' choice? To ascertain Head Start parents' questions about various parental program activities, the Q-Sort technique was employed. A list of typical Head Start parental involvement activities was developed using the Head Start performance standards and a handbook for involving parents in Head Start as the guidelines. To ensure that the list of activities reflected the Chicago Head Start program, input was solicited from the area parent coordinators of the city of Chicago, the principal grantee for Head Start programs in Chicago. The result was a list of 22 activities, which, according to the coordinators, were widely used in Chicago Head Start parental involvement programs. It was from this list that mothers were asked to choose those activities that they considered effective for development in each of the five parental involvement outcome areas. A score of zero for any particular focal area meant that none of the listed 22 activities were found by the respondent to be beneficial.

Essentially, this exploratory study used comparative analyses and inspections of median ranks to ascertain mothers' opinions concerning the effective parental activities. In all cases, described below, the tallies of the mothers' choices were made by outcome area. The activities were ranked according to the number of times they were selected by the mothers. Only those activities ranked above the median will be discussed. Eight mothers in Center Two and three in Center Three did not respond to the Q-Sort.

The five parental involvement outcome areas with activities for each are: 1) Effective parenting -- demonstrate a food experience in the classroom, attend a workshop, receive training in completion of children's growth charts, serve as a classroom volunteer, develop menus, receive volunteer recognition, attend a teacher-child at-home workshop, participate in child growth and development workshops, participate in health-safety workshops, and participate in family outings. Effective parenting meant that cluster of things. 2) Family life -- the cluster representing this set comprises classroom volunteering, developing menus, participating in child growth and development workshops, participating in health-safety workshops, and participating in family outings. 3) Self-esteem and confidence -- serving as a representative on a council or committee, being elected as an officer, attending a workshop, serving as a classroom volunteer, and receiving volunteer recognition. 4) Education -- assisting in the development of program objectives, including curriculum; serving on staff hiring interview committee; serving as representatives on a council or committee; conducting workshops for other parents; attending a workshop; receiving training in completion of children's growth charts; serving as a classroom volunteer; participating in an employment opportunity workshop; participating in an employment workshop; attending a teacher-child at-home workshop; participating in each growth and development workshop; and participating in health and safety workshops. 5) Employment -- there are a similarly large number of activities related to it that were selected by the parents.

The activity selections made by parents from the combined centers contained no surprises. The activities selected most often by more than 50% of the group, regardless of outcome area, were serving as a representative on a council, attending a workshop, and serving as a classroom volunteer. These activities may have been most selected because they were most frequently offered, regardless of differences in the center's parental programs. By considering each center individually the possible effect of the parental involvement program became clear. Although all activities were selected at least once, two items -- applying for and receiving a paid Head Start position, and applying for and receiving a non-paid Head Start position -- were not highly selected for any outcome. It is possible that these activities were not readily available to mothers.

SUMMARY AND CONCLUSIONS: The results of this exploratory research suggest possible variations in the center parental programs, as well as possible differences in the mothers themselves. While there are similarities in the choice of activities made by mothers, it is important to note that the mothers at the low-involvement center chose more activities than the mothers at the high-involvement centers. It is possible that mothers at the low-involvement center were not basing their opinions on experience, but were guessing about which activities would be beneficial had they been offered at their center. An equally likely explanation is that mothers at the low- involvement center were less knowledgeable about their selections. They may have had less experience with the various activities, and thus less information on which to base their choices. Nevertheless, if the variation in choices of activities between outcome areas and level of center involvement found in our exploratory data can be replicated, there is a basis for focusing much more attention on tailoring parental involvement programs to fit the goals and needs of the participating parents, and for giving greater attention to soliciting the opinions of parents in the design and implementation of these programs. The increased effectiveness and success of parental involvement programs and their activities as a result of this approach would more than compensate for the increased time needed to tailor these programs.

Parental Involvement and the Impact on the Upward Mobility of Head Start Families *Ura Jean Oyemade*

I am going to report on the larger study from which some of the data that were reported in Lindsay's paper is based. Some of the methodology overlaps, so I won't have to go into as much detail on that. The title of the study is: "The Relationship Between Head Start Parental Involvement and the Economic and Social Self-Sufficiency of Head Start Families." The authors of this paper are myself, Valora Washington, and Dominic Gullo.

As we have been discussing over the last two days, a primary goal of Head Start was to interrupt the cycle of poverty. We are finding that, although that was the goal and we feel that Head Start has been very successful, poverty in fact is continuing. The reason that Head Start was to address the issue of poverty was that it was going to be a comprehensive program that would include intellectual, health, nutritional, social development, and parental involvement components. As Zigler pointed out in his book Project Head Start: Success or Failure?, "although development gains for Head Start children had been demonstrated, social scientists, politicians, and the public at large were still baffled about why the project had not become the panacea for poverty that it was expected to be." Perhaps more needs to be learned about Head Start's parental involvement component to understand why the underlying variable factor was not achieved as greatly as it was hoped. Research on the efficacy of parental involvement in Head Start has demonstrated many benefits. For parents, the benefits were manifested. Mann, Harrell, and Hurt (1977) indicated that the benefits included better parenting skills, better communication with the children, greater sensitivity and emotional responsiveness, a tendency to use more encouragement with their children and to provide more information when talking to them. The effects of parental involvement for children in Head Start have been documented also. These include higher scores on intelligence tests, more adequate social skills, and more positive interaction. However, in relation to the initial goals of parental involvement to improve the economic status and to provide a more favorable developmental environment for their children, there was little information available, especially in economics and social self-sufficiency. Also, when we got ready to do this study, we determined that there was little evidence about the actual extent of parental participation in Head Start. Many programs had a great deal of parental involvement, some had very little. We did not have much documentation about which programs did and which did not, and we also did not have much information about the reasons why. We did note, however, that there were numerous limitations to parental involvement: lack of convenient and affordable transportation; lack of child care for other children in the family; the constraints of parliamentary procedure; and a frequent rotation of participating parents, in other words, because Head Start was only one year, the parents would actually be in the program for only one year. Even though we logged the parent involvement component, a lot of critics say, well, you know, it is really not all that it's cracked up to be. In other words, it is not as significant as suggested because the implementation varied so widely. There have not been very much data that tell what kinds of parental involvement activities were most productive, as was pointed out in Lindsay's paper. Also, national evaluations neglected to assess the parents' contributions to the Head Start programs, and the benefits parents had realized from their participation with regard to economic and social self-sufficiency. There had been no systematic research on the effects of Head Start on employment, educational status, the personal aspirations, and other measures of the economic mobility of Head Start parents. Not much was known about the impact of Head Start on the educational achievement of other members of the family, in addition to children who were enrolled in the Head Start program.

The data reported here are part of a larger study in which we looked at research questions that were designed to provide empirical information on the relationship of parental involvement to the economic and social self-sufficiency of Head Start families and children. The questions were: 1) What is the relationship between the Head Start experience and the economic and social self-sufficiency of Head Start families? 2) What is the relationship between the level of the center's involvement and the economic and social self-sufficiency of Head Start families? 3) What is the relationship between the intensity of parent involvement and the SES families? This is based on the notion that the level of parent involvement was not consistent across centers. In some centers there was a high level of involvement, whereas in other centers there was not. We looked at the level of overall center involvement and how it related to the economic and self-sufficiency of parents. We also looked at the intensity of parental involvement and the economic and social self-sufficiency, i.e., how involved the parents were.

We had four sites -- Nashville, Baltimore, Chicago, and Akron. We had parents from two years -- 1978 and 1984. What we did was have the directors rate the centers in terms of high involvement, medium involvement, and low involvement. We threw out the medium-involvement centers and kept only the high-involvement and low- involvement centers. Two high- and two low-involvement centers at each site were selected. Twenty parents were randomly selected from each of the four centers. Attempts were made to locate them and obtain consents for participation in the study. This became a difficult task. In trying to go back and do retrospective data collection, we found that many centers purge their data after about five years, so it is very difficult to go back. They would have to go back to warehouses and so forth to find their data. It argues for doing prospective studies if you want to look at the impact. We ended up with 205 subjects. Of these, 189 were Black and 16 were white. Basically what we did was identify from center records families who were enrolled in 1978, and then locate them and interview them to determine their economic status.

In terms of the instruments, we developed two questionnaires: Parental Involvement Survey and Parental Involvement Outcome Measures. In the survey, we asked parents to report their level of involvement in various activities when they were in the Head Start center, as well as information on income, SES, education, employment, etc. The parental outcome measures assessed factors such as enrollment in formal and informal training programs, degrees and certificates received, work patterns, work attitudes, knowledge and use of support services, resource management, income sources, living arrangements, public school involvement, knowledge of and participation in community organizations, satisfaction with the parental involvement component of Head Start, and recommendations for modifications in the Head Start parental involvement component. We also had a rating by staff, based on parents' records. Parents were classified as high-, medium-, or low-involvement based on staff ratings, their responses to the survey, their membership on Head Start policy boards, and other criteria listed in the PIR. At each site, interviews were administered in the parents' homes by interviewers who were trained using a standardized procedure. Data were transmitted to the central office for processing a d analysis. Simple frequency analysis, chi-square analysis, and t-tests were conducted on the data.

We found that, overall, Head Start parents are significantly better off now than they were at the beginning of their Head Start experience. For example, only 20.4% of the families were above the poverty level at the beginning of Head Start involvement; 27.8% are now above the poverty level. Of course, that still suggests that there were a large number who were still living in poverty.

Another variable that we looked at was the preferred daily activity. We found that there was a difference in terms of attitudes toward work. Before, perhaps because their children were small, they preferred to stay at home. Now they prefer to work. A larger percentage is working. Unemployment is much less now than before they started Head Start. Home ownership, which is another socioeconomic variable, increased, from 20.8% to 25.7%. More have their source of income from salary instead of public assistance. Of course, this may also be related to the fact that some would no longer be eligible for AFDC because children have to be a certain age for the parent to be eligible.

With regard to employment of the mother, there are a greater number who are employed full-time or part-time. More fathers are employed now than before they started Head Start. There is not as big a difference with the fathers as with the mothers. More of the mothers had had some college by the time they finished Head Start, or since they had been in Head Start. They had some college credits, and some even earned a college degree. The same was true for fathers.

Regarding the second question, the relationship between the level of center involvement and the economic and social self-sufficiency of Head Start parents, we see that those who were in the high-involvement centers, however, now report that they prefer to stay at home and care for their children. This suggests that these mothers may have had more time to participate because they weren't working. Something else of interest is that 81% of mothers in the low-involvement centers were below the poverty level, compared with only 65% in the high-involvement centers. More fathers were working in the high-involvement centers, 72.2% versus 48.3% -- a significant difference.

Next we looked at the relationship between intensity of parent involvement and SES. The intensity of involvement was determined by summing the number of Head Start activities in which parents were involved. Subjects were classified as high, medium, or low involved, based on the total scores on this index. Chi-square analyses were performed to determine the relationship of the intensity of involvement to the socioeconomic variables. Results indicate a significant positive relationship between intensity of Head Start parental involvement and preferred daily activities (i.e., those mothers who were more highly involved were likely to prefer working); family income (i.e., the more they were involved, the higher the income); occupation (i.e., the greater the intensity, the more likely they were to be working); and education (i.e., the greater the intensity of the involvement, the more likely the mother was to be more educated. Parents with higher SES responses, both at the beginning of their Head Start involvement and when the interview was administered, tended to have a generally greater intensity of involvement in Head Start activities. Similarly, parents with higher socioeconomic status, for example, education and home ownership, had a greater intensity of involvement in career and job-related skill development activities.

The results of this study suggest that Head Start, and particularly its parental involvement component, has had a positive effect on the upward mobility of Head Start parents. A significant number of parents whose children attended a high involvement Head Start centers are economically better off now than they were when their children began Head Start. However, with regard to intensity of involvement, it appears that parents who were more involved in Head Start tended to be the relatively higher SES parents from the beginning. Therefore, there are probably certain types of parents who tended to be more involved. Our concern lies with those parents who are not involved and who have a lower socioeconomic status -- the truly disadvantaged. What kinds of things could one do to

get them involved so that they could benefit from the interaction. The approach that Winkelstein and Lindsay are suggesting holds promise -- to try to tailor, the parental involvement component to the specific needs of the parents.

We are also doing a substance-abuse prevention program. One of the things that was suggested for this program is that in some instances there might be a need to have mobile vans for the Head Start programs to go out to the communities and have parent involvement activities in the neighborhood, so that the parents would not have to face the barrier of transportation. Another suggestion that was made during this study is that we should use more mentoring in terms of the Head Start parents. The ones who are from the higher socioeconomic status or who are more highly involved need to begin working and interacting with those hard-to-reach parents, to get them to also be able to benefit from the program. One of the things we do in our substance-abuse prevention program is to brainstorm with each of the groups that we train about what kinds of ways we could increase parental involvement -- to get parents to like the program and to come out and participate in it. As we go from site to site, we find that what is effective for one group is not always effective for another.

We made some additional recommendations in terms of the parental involvement component. We thought that it should focus on reinforcing the values that have been found to foster achievement. Andrew Billingsley has done a study on Black families in white America. One of the things he suggests is that we need to find and identify those factors that make families more viable and try to instill those factors into the other families. We have come up with several factors: the work ethic, supervision, and self-confidence. We also said that we should work on strengthening the family structure. This will be difficult, but we are talking about improving male-female relationships, reducing the incidence of teen pregnancy, and preventing substance abuse.

Discussion *Dominic Gullo, Aline Garrett*

ALINE GARRETT: Throughout the conference we have heard over and over that the family is part of an ecological system and that we can't study the child separately, that is, out of context. Nor can we ignore the parent-child interface, that is, the family. I think that we can't talk about parent involvement without considering the broader environment -- where the family is, what is happening to the family, what are the specific needs of the family. As I listened to the papers, I was thinking of the flow from perception to reality to action. Very specifically, in Beatty's work, I think it is extremely important, because as we all know, one of Head Start's biggest concerns is to increase parent involvement, which usually means the mother. Beatty's paper helps us to understand some of the barriers to the father's participation, and as we begin to understand some of those barriers it will help us to increase the participation of mothers. I was particularly interested in the needs assessment they did. There were various recruitment strategies, they tried many different kinds of things, but ultimately what they did was to involve parents themselves in the process of assessing needs and identifying those families to participate in the needs assessment. Another important aspect of Beatty's paper is the perception of others and the self regarding participation, why there are barriers and what the barriers are. There were some similarities between fathers and mothers, but I was extremely fascinated with how fathers' absence from the home was considered by the mothers to be an important barrier, but not by the fathers. This relates to the notion that you are still part of the family; you may not be in the home, but you are part of the family.

In Lindsay's paper, we move away from the perception of staff and others regarding activities for parental involvement to what parents themselves say is important. We tend to think that we know what is important in parent involvement. Parents are capable of telling the staff and Head Start which activities are important in reaching particular types of outcomes. We need to continue to solicit their input. Another point: parents in rural communities, for example, may speak with a different voice than people in urban settings. Hispanic parents may also see the importance of activities differently than Asian families or Black families. Head Start can and should be responsive to ethnic and cultural diversity. Parent involvement can't be packaged. Oyemade talked earlier about flexibility being one of the key ingredients. One center may be concerned with certain strategies or activities. Another may be doing something else. Being more responsive to the parents in that program is the direction to go. Oyemade tells us that parental involvement is associated with employment, with education. Ultimately, the word is empowerment. That is what we have heard throughout the conference.

DOMINIC GULLO: I want to highlight some of the major concerns of this conference as reflected in the papers that were presented, then talk about some of the implications from each of the studies and include some overall recommendations for doing research on parent involvement in Head Start. First, all of the studies point to the fact that we need to look at the impact of parent involvement in a broader context. That is, we need to look at it as it impacts the children, the parents, and the broader community. The last study, for example, which showed that Head Start involvement increases social and economic self-sufficiency, has an impact on the community. We usually do not look at how Head Start itself and the positive outcomes of Head Start have impacted the community.

One of Head Start's biggest strengths is also one of its weaknesses -- that is there is no standardized curriculum. The strength is that the program can be modified to meet the needs of individual communities and children. The weakness is that it is very difficult to evaluate, because you can't use standardized assessment procedures across the whole Head Start experience, nor can you make a blanket statement that Head Start is effective. What this indicates is that those who participate in Head Start are not a homogeneous group of individuals. We have to look at them as individual groups, individual families, and within the families we have

to look at individuals. Being in the same family does not mean that the needs are the same for all members, as Beatty pointed out in her study on the different perceptions of mothers and fathers. Needs are different, expectations are different, and so forth.

I would like to comment briefly on one point in Lindsay's study. The Q-Sort -- looking at what aspects of parent involvement were important -- was done after parent involvement. It also could be used in an excellent way to assess what parents' needs are before they begin the program and design parent involvement around what parents perceive as their needs.

Beatty's paper takes the notion of parent involvement a step further than we have talked about before. Perhaps we need to look at family needs, not just at the families themselves. Fathers may and do have different needs than mothers. I have a suggestion for why you may have found differences in fathers' and mothers' perceptions about father absence. I am not sure from the study if they were matched samples. One of the reasons you may have found a difference in opinion was that the fathers who volunteered to participate may have been at-home fathers or fathers who were in the family. You had a much broader participation of mothers, and therefore there may have been more of a likelihood that they were in father-absent homes. You can look at the findings and barriers in a positive sense. The barriers to parent involvement regarding fathers could provide the context and structure for developing parent involvement for fathers. That is, one of the barriers was lack of opportune time. That could dictate when to have parent involvement for fathers. Lack of knowledge in child development was another barrier. That could indicate what content is relevant or needs to be part of parent involvement for fathers. The perception that parent involvement, or parenting, is the mother's job was another barrier. This indicates that there needs to be a difference in focus -- an acknowledgement that there are qualitative differences between mothers' and fathers' roles in the parenting process. For so long we thought that parenting is parenting, and that is not true.

In the last study that was presented, looking at the effects of Head Start on the social and economic self-sufficiency of families, we need to go beyond the data. The data demonstrate that there were positive effects if one had Head Start experience, although the numbers were small. We need to take that small group that did change and look at, as Zigler mentioned this morning, the mediating factors of cause. Why did they change? Why didn't the other families change? This is the future direction of our research and evaluation in Head Start across all areas.

Finally, the unifying theme of all of the studies underscores that there is no homogeneity in Head Start, whereas we have assumed homogeneity in the past. There are differences across families as well as within families. We need to acknowledge that. All of this underscores what has been said throughout the conference, that a model program and evaluation in Head Start needs to be one that addresses diversity -- diversity of needs, diversity of characteristics of children, families, and communities, and diversity of outcomes.

OYEMADE: One of the longest debates with staff concerns the definition of parent involvement and how to measure it. When is it adequate? There are differences of opinion. Some directors, for example, look at parent involvement as participation. Do they see the parents? Do the parents bring their children to the center? Do they go on field trips? Do they come to the parent policy committee meetings? Some others look at parent involvement as much broader than that. They feel that some parents may have increased their involvement with their children at home as a result of participation in Head Start, but not necessarily at the center. There is no consensus on the parameters of a concept of parent involvement. Yet, for the purpose of our project, we agreed that parent involvement would be defined as participation in any type of activity at the Head Start center only. The major purpose was to increase involvement of fathers in those areas where there was interaction with their children, as opposed to just coming to the center for a policy committee meeting or to work in the kitchen.

Panel 117 ADOLESCENT PARENTING

Chair: **Teresa Buccarelli**; *Discussant:* **Terrance Olson**

A Prospective Study of the Interrelations Among Potentiating and Protective Factors and Developmental Outcomes for Adolescent Mothers and their Children *Bonnie J. Leadbeater, Oriana Linares*

Typical forecasts of future prospects for adolescent mothers predict welfare dependency, limited education and career opportunities, rapid repeat pregnancies, single parenthood, as well as negative outcomes for their babies. Wide-sweeping negative expectations can, however, be destructive to intervention efforts. As Weick (1986) points out, "the massive scale on which social problems are conceived often precludes innovative action because the limits of bounded rationality are exceeded and arousal is raised to dysfunctionally high levels,...overwhelming the ability to do anything".

We do not want to argue that outcomes for many adolescent mothers are not negative, but we do want to make two points about predictions of pervasive negative outcomes for them based on reports of their probable increased risk compared to adult mothers. First, such studies suggest the erroneous stereotype that all adolescent mothers and their children will do poorly. There is growing evidence that there is no unique profile for adolescent mothers (Furstenberg, Brooks-Gunn, & Morgan, 1987; Hamburg,

1986; Phipps-Yonas, 1980). Second, comparisons between adolescent and adult mothers yield information about their relative risks, but do not help to identify factors that contribute to within-group differences in risks. Not all stressors are equally important in predicting outcomes for either adolescent or adult mothers, and prospective studies of the interrelations among the multiple factors that potentiate or compensate for risk factors are badly needed. Without an understanding of the diversity of experiences of adolescent mothers and the factors most salient in preventing negative outcomes for them, it is possible that intervention programs will serve the more motivated mothers and fail to address the special needs of those who are at greatest risk.

Methodological improvements in the study of high-risk populations allow for illumination of a more comprehensive picture of the diversity in outcomes for adolescent mothers and their infants. Prospective studies following samples at risk for negative outcomes increase not only the probability of identifying characteristics of individuals experiencing negative outcomes, but also of identifying characteristics of individuals who show competent behaviors despite high-risk circumstances. Such a design also permits investigation of the relative importance of protective and potentiating factors that predict impaired or competent responses to early childbearing.

We have been conducting an ongoing study of predictors of successful and unsuccessful transitions to early adulthood for adolescent mothers, and of optimal development and school readiness in their children. One hundred and twenty adolescent mothers who enrolled in the parenting program at a community-based, adolescent health center in New York City are participants in this study. At the initial point of assessment, most (98%) were having their first baby. They were between 14 and 19 years of age, primarily Black (53%) or Puerto Rican (42%), English-speaking, and lived in East Harlem or the South Bronx. At 12 months postpartum, 63.1% of the mothers were in school or had graduated (23.5% of the total had finished high school); 60.4% were supported by their own or their families' welfare; 64% lived with their parents (usually their mother); and 39.6% had had a second pregnancy. By 28 to 36 months postpartum, the decline in the numbers in school or graduated, the increases in those on welfare, and the repeat pregnancies confirm the need for an understanding of the factors that increase risk for negative outcomes among some adolescent mothers.

In an effort to look intensively at within-group differences, we have collected a comprehensive data set with points of assessment at 1, 6, 12, 20, and 28 to 36 months postpartum. For the mothers, we have repeatedly assessed "hard" outcome data, including educational achievement, residential stability, employment history, marital status, and welfare status. We have also repeatedly assessed predictors of these outcomes, including depressive symptoms, stressful life events, relations with the grandmothers, social support from family and friends, relations with the babies' fathers, and birth control use. We are also coding the mothers' sensitivity in play interactions with their children, recorded on videotapes at 12 and 20 months postpartum. The most recent assessment includes a semi-structured interview focusing on mothers' descriptions of their lives since their babies were born, their aspirations for themselves and their babies, their motivation to accomplish these plans, the quality of their social support networks and day care arrangements, and their views of themselves as women and as parents.

Child assessments included records of prematurity, birth weight, and illnesses during the first 12 months, temperament at 6 months, mental and physical development at 12 months (Bayley Scales), language development at 20 months (Sequenced Inventory of Communication Development), cooperativeness in videotaped interactions with the mothers at 12 and 20 months, and behavioral problems (Child Behaviors Check List) at 28 to 36 months.

One hundred and two (85%) were available for the 6-month postpartum assessment, 113 (94%) for the 12-month follow-up, and 82 (66.6%) for the most recent interviews at 28 to 36 months postpartum. The two studies briefly reported here focus on the mother's school outcomes and her sensitivity in play interactions with her child at 12 months postpartum (Linares, Leadbeater, Kato, & Jaffe, in press; Leadbeater & Kato, 1991). We hope in particular to illustrate the usefulness of studies of the within-group diversity of adolescent mothers for 1) tailoring service programs to their needs, 2) guiding the development of cost-effective programs, and 3) delineating testable hypothesis for evaluating program effectiveness.

Based on their school attendance before the pregnancy and up to 12 months postpartum, we categorized the adolescent mothers as "continuous attenders" (40.7%), who were in school through the pregnancy and first year postpartum,"school returners" (21.2%), who were not in school some time during the pregnancy or first year postpartum but who had returned by the 12-month assessment, "before-pregnancy dropouts" (12.4%), who dropped out of school before the pregnancy and did not return, and "after-pregnancy dropouts" (25.7%), who dropped out after the pregnancy and did not return (Linares, Leadbeater, Kato, & Jaffe, in press). Our findings suggest differences in these subgroup profiles, based on assessments of depression and delayed grade-placement at 1 month postpartum, and repeat pregnancies by 1 year postpartum. Continuous attenders appeared to be coping competently with the demands of parenting. At the time of their deliveries, they were generally at grade level. They did not report high levels of depressive symptoms, and were significantly better than the other mothers at controlling their fertility during the first year postpartum. Only five (18%) of the mothers in this group had a repeat pregnancy, and only two carried it to term.

In stark contrast to the attenders, mothers who dropped out prior to the pregnancy and did not return in the first year postpartum appeared to be at highest risk for low educational attainment. These mothers were, on the average, 2.4 years delayed in grade-placement at 1 month postpartum. They reported significantly more depressive symptoms than mothers from the three other groups. Repeat pregnancies were reported by 69% (n=9); of them, four carried the pregnancy to term. The possibility of such a group raises serious concerns for outreach and remediation efforts. Mothers from the before-pregnancy dropout group are not likely, given their previous school failure, to return to regular school programs. A one-to-one, long-term, casework approach, mobilizing these

young women through community-based programs, may be needed to improve their feelings of self-worth and competence. Treatment of their depression may be a prerequisite to enhancing their motivation to invest in the future. The mental health needs of these young women can be easily overlooked, given their generally overwhelming needs for concrete services like WIC, welfare, day care, and housing.

The after-pregnancy dropouts and returners have similar profiles (75% of the returners came from the after-pregnancy dropout group). On the average, they are 1 to 1.8 years behind in their grade-placements. Like the attenders, they do not report high levels of depressive symptoms. However, many of these mothers reported repeat pregnancies (60% of the after-pregnancy dropouts and 38% of the returners), threatening their ultimate education. Research is needed to evaluate the causes and effects for both the adolescent's final educational achievement and her infant's development, of differences in length and timing of pregnancy-related interruptions in schooling -- what for some might be a kind of maternity leave.

School-based, prenatal, outreach programs with individualized assessment and follow-up may prevent dropping out in the returners and after-pregnancy dropouts. While these mothers can easily be identified by school services, anecdotal evidence suggests that a pattern of gradual withdrawal from school is heralded by increasing pregnancy-related absences (e.g., morning sickness, fatigue). Despite the 1972 Educational Amendment preventing school expulsion for pregnancy, informal cultural value systems may continue to support confinement for pregnant teenagers. Pre-delivery and post-delivery discussion of sexuality and family planning also seems central to their future success.

Follow-up is needed to determine whether school outcome at 1 year postpartum is predictive of long-term educational attainment. Given the subgroup profiles obtained in this research, it appears that there is considerable diversity in the risk for poor educational attainment among inner-city Black and Hispanic adolescent mothers. The ability to generate hypotheses concerning which subgroups of adolescent mothers will benefit from particular intervention efforts at what point in their lives has potential for designing and evaluating cost-effective, accessible service programs.

A second question that needs to be asked in order to enhance the ability to translate research into program action is whether some risk factors are more salient than others in causing within-group differences in risk. The second study I will describe investigates the relative importance of predictors of within-group differences in maternal sensitivity in play interactions. Why do some adolescent mothers exhibit dysfunctional parenting styles, while others appear to be sensitive and responsive in interactions with their infants?

Models of the etiology of dysfunctional parenting emphasize the need to assess the interaction of multiple parent, child, and environmental characteristics (Cicchetti & Carlson, 1989). However, little research has attempted to evaluate the relative importance of these variables for adolescent mothers, and we are left with the impression that comprehensive programs are needed to address them all at once or nothing will be achieved. The reality is that many of these predictors are highly intercorrelated, and the relative importance and independent contributions of such characteristics are not known. We investigated the multivariate relations among several predictors of the sensitivity of adolescent mothers.

Our approach to this investigation draws on two theoretical models of the etiology of dysfunctional parenting (Leadbeater & Kato, 1991). These models differ with respect to the importance each attributes to the parent (usually the mother) as the principle cause of impaired interactions. The transactional model implicates a crucial balance among parent, child, and environmental factors in the etiology of poor parenting (Cicchetti & Rizley, 1981). The second, the maternal mediation model, considers the personal resources of the mother (intelligence, education, mental health, etc.) to be most salient in buffering or potentiating the effects of other stressors, so that assessments of maternal functioning should best capture the integrated effects of multiple variables (Belsky & Vondra 1989; Pianta, Egeland, & Erikson, 1989).

A hierarchical regression equation was constructed to test these two models. If the maternal mediation model is supported, the effects of infant and environmental characteristics should not be significant after the effects of measures of maternal functioning are considered. Hence, assessments of maternal functioning in the first year postpartum (average levels of depression, delays in grade placement, occurrence of a repeat pregnancy) were entered first, followed by the infant variables (in order of their time of assessment: birth weight, temperament, and mental and physical development). Environmental variables were entered last, in order of their expected importance to the mother (Crockenberg, 1987; Unger & Wandersman, 1988), such as support from the babies' fathers, from friends, acceptance from the adolescent's own mother, support from family in general, from peers, and welfare (as a community support measure). Life stress was entered last, reasoning that the variable of interest is life stress unbuffered by social supports.

This equation significantly explained a total of 24% of the variance in maternal sensitivity. Variables that added significantly to the prediction of sensitive play interactions, after the effects of maternal functioning were considered, included the babies' mental development and support from the babies' fathers. Correlations among the variables indicated that the infant's mental development was related to temperament (r=.29, p<.01) and birth weight (r=.22, p<.05), and that father's support was related to his employment status (r=.23, p<.02), but not to his age or last grade completed. Together these findings give support for the transactional model of the etiology of dysfunctional parenting. In the context of supportive relations from a partner and with higher levels of cognitive development in the baby, maternal sensitivity at 12 months postpartum may be sustained, despite the mother's depression, educational delay, and rapid repeat pregnancies. The fathers may indirectly improve their children's lives by improving the quality of

maternal care, or even the amount of time spent with the child as a family. Larger infants, with higher levels of cognitive functioning and easy temperaments, may also be more responsive play partners in interactions with their mothers. To a degree, they thus may compensate for other handicaps in maternal functioning. These findings also directly support intervention programs that seek to improve the involvement of the fathers and prenatal programs that attempt to eliminate low birth weight and premature deliveries to adolescent mothers, and to improve infant stimulation.

Prospective studies of salient predictors of short- and long-term outcomes for subgroups of adolescent mothers do offer to enhance our ability to address preventable negative outcomes and to design stage-appropriate, prevention-focused programs. This knowledge is also essential to increase our ability to wisely direct limited resources while continuing to promote effective services for adolescent mothers and their children.

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Adolescent Parenting: The Role of "Readiness to Parent"

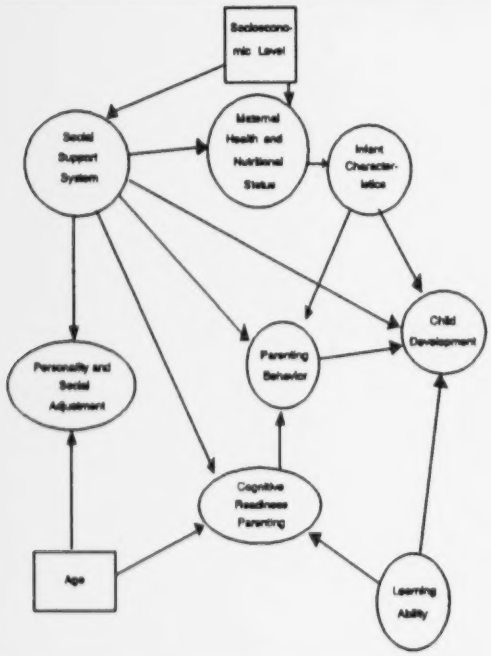
John G. Borkowski, Thomas L. Whitman, Cynthia J. Schellenbach

Most social workers and many researchers understand the intricate tangle of personal and societal problems that follow teenage pregnancies. Often, a cycle of welfare, child neglect or abuse, school failures, and disordered family life commences and, in the case of the female child, another early pregnancy renews the cycle. The general aim of this project was to enhance our understanding of adolescent parenting and how it can lead to various developmental delays, including mild retardation and learning disabilities.

A multidimensional model was constructed to guide the search for the correlates (and eventually the causes) of inadequate parenting practices among teens (see figure 1). The interplay of three unique maternal constructs (cognitive readiness, learning ability, and maternal health) is highlighted in our model of teen parenting, setting it apart from Belsky's (1984) model of adult parenting. Moreover, an enhanced role is assigned to the adolescent's social support system, especially as it relates to cognitive readiness to parent. Thus, the model depicts relationships among maternal constructs, social support, and child characteristics, and illustrates how these constructs conjointly affect parenting and subsequent child development.

Whitman, Borkowski, Schellenbach, and Nath (1987) have suggested that distinctive characteristics of adolescent mothers place them at risk for non-optimal parenting and their child at risk for a variety of developmental delays. In contrast to more general models of parenting, such as those proposed by Belsky (1984) and the Whitman et al. (1987) model, this emphasizes the role of cognitive readiness to parent. From our perspective, cognitive readiness has three components: mothers should have an attitudinal predisposition to being a parent, should have knowledge of how children develop, and should understand what constitutes appropriate parenting practices. Because of their youth and relative inexperience, the adolescent mothers' knowledge of children and appropriate parenting practices is, in general, likely to be more limited than that of older mothers. Although young mothers as a group may be less cognitively prepared to parent, they probably vary considerably on this dimension. Whitman et al. (1987) pointed out that some teenage mothers may profit less from their life experiences because of lower educational attainment, diminished intellectual ability, absence of social supports, and/or social-emotional immaturity, with the consequence that they are less cognitively ready to parent. More specifically, cognitive readiness to parent depends upon both the information teen mothers receive from their formal and informal social support systems as well as their ability to assimilate this information and subsequently utilize it in specific situations. To the extent that adolescent mothers are struggling with their own crises and searching for their personal identity, they are less likely to have an interest in being a parent or the time to consider their parental responsibilities. We hypothesize that a deficit in cognitive readiness to parent predisposes teenage mothers to greater parenting stress as well as to less responsive parenting.

Figure 1. A MULTIDIMENSIONAL MODEL OF ADOLESCENT PARENTING



From a research perspective, a review of the teenage parenting literature yields disparate conclusions concerning the preparedness of adolescent mothers and whether they are less equipped for parenting than adult mothers. One possible reason for seemingly discrepant conclusions is the fact that researchers define and evaluate "cognitive readiness for parenting" in narrow and diverse ways. Whereas some studies assessed maternal knowledge of child development (Vukelich & Kliman, 1985; Gullo, 1987), others have examined attitudes toward the parenting role (DeLissovoy, 1973). Still others examine parenting knowledge and style (Parks & Smeriglio, 1983; Roosa et al., 1982). Another possible reason for the disparity in research findings relates to the samples employed, which have been idiosyncratic and generally small. Past research on cognitive readiness has also been plagued by other methodological problems, including lack of appropriate comparison groups and inappropriate statistical analyses.

Although considerable research has examined the cognitive characteristics of adolescent mothers, relatively little is known about whether these characteristics influence parenting behaviors. Although several studies suggest a relationship between parenting knowledge of child development and parenting style, the majority have employed only indirect measures of parenting, such as the HOME Scale (Parks & Smeriglio, 1986). To gain a more complete understanding of adolescent parenting, the link between cognitive readiness and parenting behavior needs to be examined in greater depth. This type of exploration can assist in early identification of teen parents who are at risk for maladaptive parenting and in the formulation of more effective parenting programs.

In contrast to most previous research evaluating cognitive readiness, Sommer, Whitman, Borkowski, Schellenbach, Maxwell, and Keogh (in press) employed a variety of cognitive readiness measures, including assessments of child development knowledge, parenting knowledge, and parenting attitudes; a more comprehensive assessment of parenting behavior (a larger sample size); and two comparison groups (i.e., adult and nonpregnant adolescent samples). We selected the groups randomly, recognizing that the samples would likely have unique characteristics reflecting the population demographics of adult and adolescent mothers in the United States. For example, demographic data indicate that adolescent mothers are more likely to be Black and of lower socioeconomic status than adult mothers (National Survey of Family Growth Cycle III, 1982).

The initial aim of the Sommer study (in press) was to describe "naturally occurring differences" in cognitive readiness among representative groups of primiparous adolescent and adult mothers in order to infer population characteristics. A second goal was to assess the contribution of important sample characteristics, including SES, IQ, race, and education, to age-related differences in cognitive readiness. A final goal was to identify relationships between cognitive readiness to parent and actual parenting in our adolescent sample, again examining the shared (with major sample characteristics) and unique contributions of readiness to parent, as well as its relative contributions (versus other constructs in the model) to parenting and child development.

The participants included 171 primiparous, pregnant adolescents, 38 pregnant adults, and 48 non-pregnant adolescents. In contrast to the adolescent groups, the adult group was significantly more educated and higher in socioeconomic status and intellectual ability. A smaller proportion of the adult group included members of minority groups (28% versus 53%). A greater proportion of the

adults were married: fifty-five percent of the adult group were married whereas only 10% of the pregnant adolescents were married. The majority of adolescents lived with their mother and/or father and were more dependent upon their parents for both financial and emotional support; in contrast, the adult's primary sources of support came from their partner (or husband) and friends.

Information obtained from hospital birth records indicated that in general the infants of both adolescent and adult mothers were born in good health. Average birthweight of infants with adolescent mothers was 3236 grams as compared to 3279 grams for children of adult mothers. Average five-minute Apgar scores for the infants of adolescent and adult mothers were 7.6 and 8.7, respectively. Developmental assessments conducted with the children around 6 months of age indicated that the children of adolescent and adult mothers were performing at age-appropriate levels. Children of adolescents averaged 105 on the Bayley Mental Index, while children of adults obtained a mean score of 110.

All expectant mothers were initially seen during the last trimester of their pregnancy, while the non-pregnant participants were seen at various intervals within the same basic time frame as the pregnant samples. For all participants, three measures of cognitive readiness for parenting were administered, as well as multiple measures of the other constructs in figure 1. Adolescent and adult mothers were seen again six months after the birth of their babies. At this time, the same three cognitive readiness measures were readministered to assess changes in parental knowledge and attitudes. In addition, a self-report measure of parenting stress was administered, and each mother and child pair was videotaped while interacting in a toy play situation. The videotape was subsequently rated via two behavior assessment procedures -- a global scale of maternal interactions (MIS) and a more molecular assessment of reciprocal mother-child interactions (MBA).

In accordance with our hypothesis, a series of analyses of prenatal and postnatal cognitive readiness indicated that the adolescent mothers were significantly less knowledgeable about child development, displayed a less desirable parenting style, and held more undesirable attitudes toward their parenting role than the adult mothers. It was predicted that age, serving as a proxy variable for educational background and social-emotional maturity, might differentially influence the ability of adolescent and adult mothers to benefit from their early childrearing experiences and, as a consequence, enhance their readiness to parent. In contrast to expectations, neither adults nor adolescents showed significant changes in the three components of cognitive readiness from the prenatal to the postnatal assessment periods.

When cognitive readiness for non-pregnant adolescent and adult mothers were compared, a similar overall pattern of results was found, with the adult group again displaying higher cognitive readiness scores. These results suggest that the relative level of cognitive readiness in adolescent mothers, when compared with adult mothers, is related to their developmental age rather than to their unique personal status. In general, the findings are consistent with the existing literature, indicating that adolescent mothers possess less precise knowledge about development and more negative attitudes about parenting than do adult mothers (Field, Widmayer, Stringer, & Ignatoff, 1980; Roosa & Vaughan, 1984).

As expected, there were differences in the IQ, socioeconomic status, race, and education of adult and adolescent mothers. Consistent with earlier research, adolescent mothers possessed below average intellectual abilities (Streetman, 1987; Coll, Hoffman, & Oh, 1987). Moreover, the distribution of scores of the adolescent mothers, who had a mean of 85, was skewed in a downward direction. About 20% of the mothers had IQs of less than 70, and none had IQs over 100. In order to determine if this group characteristic, along with SES, race, and educational level accounted for differences in cognitive readiness between adolescent and adult mothers, the effects of these variables were partialled out of all major analyses. Although age-related differences in maternal attitude, parenting style, and knowledge of child development were influenced by IQ and SES, age per se continued to be an explanatory factor, implying that age differences are not entirely attributable to important demographic factors. However, when the effects of all four demographic variables were controlled, age was no longer a significant explanatory factor in accounting for group differences in cognitive readiness.

Adolescent mothers were under significantly greater stress than the adult mothers, with adolescents reporting more stress in both the Parent and Child Domains of the PSI (244 vs. 215 on the total PSI scores). However, when IQ, SES race, and education were controlled, adolescent and adult mothers did not differ significantly in their reported levels of stress. This finding suggests that age differences in maternal stress are mediated by demographic factors. We expected that adolescent mothers would also exhibit less optimal parenting skills than adult mothers. It is interesting that the more global rating measurement, the MIS, presented a different portrayal of the adolescent versus the adult mother's parental functioning than the more molecular instrument, the MBA. Age-related differences occurred only with the MIS.

Consistent with our prediction, adolescent mothers were found to be less verbal, positive, and appropriate in their cuing and affectional style when compared to adult mothers, although additional analysis indicated that these differences could be in large part explained by ability, SES, race, and education. In contrast to these findings, the behaviors of the adolescent mothers, as rated on the MBA, suggested that they were as involved and sensitive as the adult mothers in their parenting interactions and that their infants were no less involved or responsive to them than were the children of adult mothers. These latter results are inconsistent with the literature suggesting that adolescent mothers are less sensitive to their infants' communicative signals and engage in less stimulating interactions with their children. Although our data suggested that attrition was not influenced by the initial demographic characteristics of the sample, it is nevertheless possible that the adolescent mothers who remained in our study were more mature, responsible, and concerned about their children than those who terminated participation.

The results from the current investigation support the hypothesized link between the adolescent's cognitive readiness and her parenting affect and behavior. Prenatal and postnatal maternal cognitive readiness measures were found to be significant predictors of parenting stress. When the effects of maternal IQ, SES, race, and education were statistically controlled, the results, although somewhat attenuated, still indicated the unique influence of cognitive readiness on maternal stress. A different and interesting pattern of results was found in examining the relationship between cognitive readiness and maternal interactional style. Although postnatal cognitive readiness predicted MIS scores even when SES and IQ were removed, the cognitive readiness-parenting style relationship was no longer significant when all demographic variables were removed. Overall, these results are consistent with past theory (Whitman et al., 1987). Adolescent mothers who lack a rich and detailed knowledge about their children, who are less cognizant of positive appropriate parenting practices, and who espouse more negative attitudes about their parenting role are more likely to experience stress in carrying out their parenting role during the first six months of life and to display less competent parenting skills. In order to assess the adequacy of our model of teen parenting (fig. 1), we used a series of regression analyses to assess the contributions of the model's major constructs to measure parenting and child development at six months of age (Sommer, 1991). First, canonical correlations were used to decide which measures were the most appropriate indicators of each construct. Regression analyses were then used to find the best predictors of maternal and child development at 6 months of age. The best measure of social support was a linear combination that equally weighted emotional support of the mother, financial support from the family, and network size. The measure of personal adjustment was competence minus externalizing and internalizing behavior (from the Achenbach Youth Self-Report Scale). The cognitive readiness measure included assessments of knowledge about infant and child development, knowledge about development milestones, beliefs about punishment, attitudes about role reversal, and child centeredness. Information and block design subtests (WAIS-R) were used to estimate maternal intelligence.

Measures of each construct were placed in five regression equations. The most interesting findings were the following: I) Stress, as indexed by the Parenting Stress Scale, and child temperament (Carey Scale) were significantly related to personal adjustment during pregnancy and cognitive readiness to parent (25% and 19%, respectively, of the variance accounted for). 2) Maternal sensitivity (as derived from videotaped toy play episodes) was significantly related to readiness to parent, and judgments about the overall quality of parenting (MIS) were related to the IQ of mothers and to cognitive readiness. 3) Bayley mental developmental scores were predicted by measures of prenatal social supports.

These findings highlight the central role of cognitive readiness (relative to other potentially influential factors) in determining early parenting skills and stress, and give credibility to this concept's addition to Belsky's (1984) general model of parenting, especially when applied to adolescent mothers. Cognitive readiness to parent appears to have unique predictive power in understanding unsuccessful adolescent parenting. This study highlights the importance of considering individual differences when investigating adolescent parenting. More specifically, the results show how an exploration of diversity within the population of first-time parents can lead to a better understanding of the factors that place young mothers at risk for poor parenting and provide more precise information concerning how interventions might be structured so as to assist young mothers in fulfilling their early childrearing responsibilities. Consistent with past theory and research, adolescent mothers were found to be less cognitively prepared for parenting than adult mothers. This deficiency in cognitive readiness is, even during pregnancy, associated with subsequent parenting stress and maternal interactional problems. Although cognitive readiness is related to maternal IQ, SES, race, and education, and hence shares a collective influence on parenting, it also has a unique influence on maternal stress. In contrast, the demographic factors appear to have their unique impact on actual parenting behaviors, as measured by the Maternal Interactional Scale (MIS).

Future research needs to pinpoint how cognitive readiness develops as a consequence of formal education, childrearing experiences, and social-familial influences. Since it is likely that other personal and contextual factors, such as adjustment, social supports, and child characteristics, and particularly temperament, directly influence the quality of parenting in concert with cognitive readiness, multivariate analyses of the effects of these variables is needed to provide a more complete and comprehensive understanding of adolescent parenting behaviors. Unraveling the complex relationship between cognitive readiness and other determinants of parenting should help clinicians and educators design more effective intervention programs.

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A Contextual Model of Adolescent Parenting *Katherine Nitz, Linda Brandt*

Within the past 20 years teenage pregnancy and subsequent childbearing has become a visible social problem in the United States. Reports estimate that by the 1980s about half of white females and three-fourths of African-American females were having intercourse by age 18. Moreover, 23.9% of all women became pregnant before age 18 and 43.5% became pregnant before age 20 (Furstenberg, Brooks-Gunn, & Chase-Lansdale, 1989). Although the fertility rates for adolescent mothers have declined during the past 25 years, children born to adolescent mothers account for approximately 29% of all first births. Moreover, a growing percentage of adolescent births are to unmarried mothers, with approximately 60% of these mothers choosing to keep their children (Brooks-Gunn & Furstenberg, 1986). Consequently, over the past 20 years there has been growing interest in how well adolescent mothers function as parents.

Early studies on adolescent childbearing assumed that adolescent mothers were at risk because they were disproportionately likely to have reproductive problems (e.g., Battaglia, Frazier, & Hellegers, 1963). More recently, reproductive problems are considered to be a problem mainly for mothers under 15 years of age (Wegman, 1987). Since the 1970s, the negative consequences associated with adolescent childbearing have increasingly been defined in terms of social and economic costs rather than biomedical consequences (Baldwin & Cain, 1980; Hofferth, 1987). For example, adolescent mothers have lower levels of educational achievement, lower incomes, and a higher probability of divorce. In addition to the negative consequences of pregnancy on the adolescent mother, research has shown that children of adolescent mothers are also likely to have undesirable outcomes. Children of adolescent mothers are likely to be low in birth weight, have higher rates of mortality, and be at greater risk for developing cognitive and behavior problems by the time they reach school age (Baldwin & Cain, 1980; Furstenberg, Brooks-Gunn, & Morgan, 1987). Research on how adolescents function as parents has also shown that adolescent mothers have more unrealistic expectations regarding their child's development, hold more punitive childrearing attitudes, are less verbal with their children than older mothers, and provide fewer opportunities for infant stimulation than older mothers (DeLissovoy, 1973; Epstein, 1980; Field, Widmayer, Stringer, & Ignatoff, 1980).

In this paper we present a model for understanding the parental attitudes and behaviors of teenage mothers. We draw upon the literature on adolescent childbearing and review the following issues: 1) the socialization of parenting occurs primarily within the adolescent mother's family of origin; 2) family members (i.e., grandmothers) can influence adolescent mothers' parenting attitudes and behaviors; 3) members of the adolescent mother's support network can be sources of interpersonal conflict and stress; 4) familial affective communication is important in influencing the relationship between stress and adolescent parenting.

The first aspect of our model is that the parenting behaviors of adolescent mothers are influenced by the interaction between the adolescent mother and her context (e.g., family of origin). In addition, the quality of the parent-child and family relationship are risk factors for inadequate parenting. Specifically, adolescent parents at risk for inadequate parenting come from families in which parents show less warmth, affection, and emotional support of the adolescent mother. In support of this view, research suggests that family members may influence adolescent mothers' parenting attitudes and behaviors (e.g., Crockenberg, 1987; Colletta & Gregg, 1981; Garcia-Coll, Hoffman, & Oh, 1987). In The Ecology of Human Development, Bronfenbrenner (1979) states that the nature of a mother's social ties appears to have important consequences for her own psychological functioning, including her parenting. Studies on adolescent parenting have shown that it is the availability of an older, more experienced parent that has some influence on the adolescent mother's childrearing attitudes and behavior (Hill, 1972; Stevens, 1984; Brooks-Gunn & Furstenberg, 1986). According to these researchers, the socialization of parenting is an important factor in the development of adolescent mothers' childrearing attitudes. In particular, these studies indicate that adolescent mothers' childrearing attitudes are positively related to their own mothers' ideas of appropriate control, feelings of competence in meeting the child's needs, and overall knowledge about child development (Cohler & Grunebaum, 1981; Stevens, 1984).

The second aspect of our model involves the idea that family members can influence parental attitudes and behaviors. The influence of family structure and parental marital status on children's behavior has been well documented. Apart from the socioeconomic disadvantages associated with one-parent families, children reared in such homes show a higher number of behavior problems, school problems, and poorer social adjustment (Hetherington, Cox, & Cox; 1982). Research has shown that the availability of social support can influence the childrearing attitudes and parental behavior of adolescent mothers. It also is associated with the adolescent mother's positive postpartum adjustment and overall satisfaction with life (Ungar & Wandersman, 1988). Adolescent mothers without support from family and relatives show less positive attitudes towards their children (Aug & Bright, 1970), and more hostility, indifference, and rejection of their children (Colletta, 1981; Mercer, Hackley, & Bostrom, 1984). In addition, high support is positively associated with such maternal behavior as responsiveness to crying and sensitivity to the infant's needs (Crockenberg, 1987). To illustrate the importance of the influence of the family on adolescent mothers, De Anda and Becerra (1984) assessed

adolescent mothers' perceptions of their social support networks. They found that the primary asset in the interpersonal environment was the adolescent's own mother. She served as a source of emotional support both during pregnancy and after the birth of the child, and was generally supportive in terms of providing child care. Other studies have also addressed the association between social support provided by the family and adolescent parental behavior. Colletta and Gregg (1981) found a positive correlation between the total amount of social support and the frequency of appropriate maternal behavior. Specifically, emotional support provided by the mother's family of origin seems to be the most important kind of support in aiding teen mothers. It is related to more positive childrearing attitudes as well as to more positive interactions between teenage mothers and their children (Colletta, 1981; Crockenberg, 1987). Mothers with more emotional support from their family of origin were less aggressive, less rejecting, and showed more warmth and compassion towards their infants. The transition to parenting is also made more smoothly with appropriate social support (Panzerine, 1986). For the African-American adolescent mother it has been suggested that the extended family is generally the most consistent provider of care and support. In general, most empirical research on the extended family has examined the effect of the grandmother's presence on child outcomes and childrearing (Pressor, 1978; Miller, 1983). A third aspect of our model on adolescent parenting is that members of the adolescent mother's support network may also be sources of interpersonal conflict and stress. Although social support has been shown to be an important variable influencing adolescent parenting, researchers have only recently begun to take into account the cost and benefit aspects when operationalizing support (Crockenberg, 1987). That is, what are the negative and positive aspects of social support? Do members of adolescent mothers' social support network place demands on the adolescent parent in addition to providing social support? To illustrate these questions, Thompson (1986) focused on how various persons in a young mother's social network contribute to her psychological adjustment. Thompson (1986) recruited a large predominantly black, low SES sample of mothers who were under the age of 21 at the time their children were born. However, unlike previous studies that have reported uniformly beneficial effects of supportive relationships on well-being, Thompson found that supportive relationships have both beneficial and adverse effects on psychological well-being. Specifically, the findings showed that support from female siblings and relatives as associated with higher levels of maternal stress or psychological distress. Thompson gives several possible explanations for the adverse influence of supportive relationships on the psychological well-being of adolescent mothers. He explains that adolescent childbearing may impose some costs on family relationships. Although family members may be helpful they may also be very judgmental. This may cause psychological distress for the adolescent mother.

Finally, a fourth component of our model involves how familial affective communication may influence the relationship between social support or stress and parental attitudes and behavior. Does negative affect in the presence of social support lead to more adequate childrearing attitudes and parental behaviors? For example, altnough some family members help the adolescent mother with child care, they may feel it is a forced obligation and communicate this to the adolescent mother. It seems that this issue has not been addressed in the literature. How, then, do adolescent mothers process affective relations within their families?

According to Steinhauer, Santa-Barbara, and Skinner (1984), communication can be affective, i.e., an expression of feeling. They believe that the goal of effective communication is the achievement of mutual understanding, and that it occurs if messages sent are direct and unambiguous. In their theory, communication can range from clear to masked; the more masked a message, the greater the likelihood of confusion. Covert content is particularly important. Features such as tone of voice, facial expression, and kinesics reflect much about the affective state of the sender. Quite often, verbal content will carry one message, while these other "channels" communicate different meaning, resulting in a mismatch or confusion. When there is a mismatch between the manifest and covert levels of communication the result can be confusion and misunderstanding. For adolescent mothers affective communication and involvement within the family of origin may play a role in the types of parental behaviors and childrearing attitudes adolescent mothers display. However, the literature reflects a paucity of research in this area.

Based on the review presented today and on the above literature explored, we believe that there is a need to provide services to teenage mothers from a family perspective. Psychologists who are concerned with the psychological adjustment of teenage mothers should remember that the family plays an important role in the adjustment process. Individual and family therapy goals should be designed while accounting for the family's ability and willingness to provide different types of support (Romig & Thompson, 1988). Most delivery services targeting adolescent parents focus on improving and maintaining the physical health of mothers and children, providing peer counseling to foster support and reduce isolation, or helping to teach adolescent mothers appropriate childrearing techniques. Another characteristics of programs serving adolescent mothers is that they generally utilize a crisis orientation model. Furstenberg (1976) concluded from his data on Black adolescent mothers that the services offered them provide short-term effects. The adolescent mothers were helped during pregnancy, but had no follow-up when they were parents. Most programs are short-sighted and neglect times when potential problems may arise. Typically, many potential problems that may arise for the whole family when the adolescent mother and her child return to the family environment are ignored. Rarely, however, do these services involve members of the adolescent parent's family of origin. Given that at least 80% of unmarried adolescent mothers live with their families (Ooms, 1984), the family could be an important source of social support. For example, family members could be recruited to assist in encouraging or actually assisting adolescent parents to complete their education or get more training. Also prenatal, obstetric, and postnatal intervention programs could encourage family members to become involved. These types of programs could help to provide social support, and would also provide salient models of responsibility-taking behavior.

Many areas of the extended family in relation to adolescent childbearing need to be explored. Given that grandmothers provide support and care, how do grandmothers (and other extended family members) react to their parenting role? A family's multigenerational history may be a good predictor of how a grandmother responds to her role. Another area of research involves the factors that influence the formation of the extended family. Research suggests that low socioeconomic status and single parenthood are factors in the formation of the extended family. Clearly, more research addressing factors that influence the formation of the extended family is needed. Finally, grandfathers, like fathers, are a neglected research population. How do fathers aid their adolescent daughters and contribute to the development of their grandchildren? Future research should explore these issues in order to enhance our understanding of teenage mothers and their children.

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Information Needs of Pregnant and Parenting Teens *Dorothea Cudaback*

Today, adolescent females in the United States have a birth rate higher than that of adolescent women in any other industrialized country (Baldwin & Cain, 1980). In 1988, 488,941 babies were born to teenage mothers (Moore, 1990). The first three years appear to be the most critical in the entire life cycle. During this time, parents' attitudes and practices crucially influence their babies' future intellectual and social development (White, 1985; Blehar, 1980; Clarke-Stewart, 1977). Unfortunately, many teenage mothers do not give their babies the kind of early care and stimulation needed for optimum development (Elster, 1990; Sparling, 1980). Compared to older mothers, teenage mothers seem to be less knowledgeable about infant development (Elster et al., 1983; Vukelich & Kilman, 1985). They tend to underestimate their babies' cognitive, social, and language abilities and needs, and may have unrealistically high expectations of their babies' physical development. Frustration when babies fail to meet inflated expectations may make adolescent parents more likely than others to use punitive methods of discipline and maltreat their children (Bolton, 1980; DeLissovoy, 1973). Compared to older mothers, teenage mothers are more likely to undervalue the impact of caregiving on infant social and intellectual development (Parks & Arndt, 1990). Clearly, teen parents need a rich variety of services if they are to help their children develop into healthy, responsible, contributing adults. One needed service is parent education. Informed parents are more likely to be effective parents (Stevens, 1984).

This paper will describe results of a study of 716 pregnant and parenting teens. These young women gave us information about their parenting attitudes and beliefs, their knowledge of child development, their sources of information about child development and parenting, and their desires for additional parenting information.

METHOD: The 716 teenage women comprising the study group were either pregnant or had a baby under 24 months old at the time of the study. These subjects are a subsample of a larger study of 2,191 low income pregnant women and parents of infants and toddlers. This subsample of teens was recruited through agencies serving pregnant and parenting teens in five states -- California (61%), Delaware (15%), Nevada (13%), South Carolina (8%), Utah (3%). Each respondent was helped to complete a 53-item questionnaire that elicited the information on which these analyses are based. Most respondents were single. Thirty-seven percent were white (non-Hispanic), 29% were Hispanic, and 26% were Black. Most of the young women were expecting or parenting their first child. Thirty-nine percent were pregnant, 48% had a baby a year old or younger, and 13% had a young child 13 through 24 months old. Most were receiving one or more kinds of financial help. Forty-six percent were living with parents; 35% with a spouse or partner.

RESULTS: Consistent with previous studies (Koepke & Williams, 1989; Sparling, 1980), the teen women we studied were most likely to report receiving information from family and friends (78%). Other sources of information, in descending order, were doctors, nurses, and other professionals (56%), magazines and pamphlets (50%), books (44%), previous experience caring for children (43%), classes, meetings, or workshops (42%), and television (26%). Pregnant and parenting teens reported similar sources of information, with the exception that obtaining information from professionals increased progressively for the three periods studied: pregnancy, parenting 0 to 12-month-olds, and parenting 12 to 24-month-olds. Respondents varied in the number of information sources they cited. Two percent checked none. The most frequent response was one source (22%). Forty-four percent cited two to four sources. The mean number of sources cited was 3.4. The number of sources cited was not related to the teen mothers' age or marital status, nor were the number of sources significantly different for pregnant women, mothers of babies under 13 months old, or mothers of 1-year olds. This response was related to race. Black mothers reported significantly fewer sources of information than white or Hispanic women ($F=12.83$, $DF=2$, $p =<.00$).

Only 5% of these young women said that they did not want more information about child development and parenting. In descending order, they most frequently requested information on: handling the stress of parenthood (60%), toilet training (79%), guidance and discipline (55%), health and safety (55%), helping their child talk (54%), child growth and change (53%), games and toys to teach children (51%), and nutrition and feeding (37%).

We compared the information desires of three subgroups of respondents: those who were pregnant, those with infants under a year old and those with a 1-year-old. These three groups differed significantly in their desires for some kinds of parenting information. Pregnant teens expressed the least desire for information about games to teach baby ($\chi^2 = 12.9$, $DF = 2$, $p <.002$), ways to help baby talk ($\chi^2 = 10.9$, $DF = 2$, $p <.004$), toilet training ($\chi^2 = 16.3$, $DF = 2$, $p <.000$), and discipline ($\chi^2 = 14.7$, $DF = 2$, $p <.001$). Mothers of 1-year-olds reported the most interest in these topics; mothers of infants desiring such information was less than that of mothers of 1-year-olds and more than that of pregnant teens. Conversely, of these three respondent subgroups, pregnant teens reported the most interest in nutrition, followed in descending order by mothers of infants and mothers of toddlers ($\chi^2 = 10.9$, $DF=2$, $p <.004$). Respondents could check up to eight types of information desired. The mean number of items checked was 4.2. Sixty-one percent of the respondents checked one to five items; 19% checked eight items. Teens who were 18 and 19 years old checked significantly more items than younger teens ($F=6.63$, $DF=2$, $p =<.01$); pregnant women checked significantly more than mothers of infants ($F = 3.61$, $DF = 2$, $p =<.03$). Hispanic and white respondents checked significantly more topics than Black respondents ($F = 12.8$, $DF = 2$, $p =<.00$). There was no significant relationship between the number of items checked by respondents and their marital status.

The great majority of our young respondents enjoyed or expected to enjoy parenthood (86%), felt prepared to parent (76%), and were, or expected to be, capable mothers (80%). Responses to some questions by the 435 teens who were already mothers suggest, however, that a fair proportion had doubts about or difficulty with their parenting role. Sixty-five percent of these young mothers reported that parenthood was harder than they had expected, and 19% reported having more parenting problems than anticipated.

Some study questions were designed to elicit respondents' knowledge and beliefs about child development and parenting. Most respondents gave correct answers to the questions related to children's language and cognitive development. However, only 69% knew that babies could understand the meaning of words before they could talk, and only 58% agreed that the way babies are raised affects their intelligence. This is consistent with the findings of Parks and Arndt (1990), who compared parenting knowledge and practices of adolescent and older mothers of 6-month-old infants. They found that the adolescent mothers were less verbally stimulating and believed that caregiving had less influence on infant outcome than did the adult mothers. Parents need to know that they can and should be talking to their children long before their children can talk; similarly, they should understand the important influence they can have on their children's intellectual development. A small but important number of respondents believed in parenting behaviors that involved withholding affectionate attention or praise or using physical punishment -- all are parenting

practices that appear to be detrimental to infants' social and personal development (Bryan & Freed, 1982; Crockenberg, 1987; Frank, 1983; Larzelere, 1986). There were a substantial number of "not sure" responses to these questions, particularly the discipline ones, which suggests an opportunity for education. Responses to these support/attention/discipline questions were unrelated to the respondents' age, marital status, or to their children's age. Some responses were, however, related to race. Black respondents were significantly more likely than Hispanic or white respondents to agree that parents should sometimes use physical punishment (χ^2 = 23.7, DF = 4, p =<.000), that children learn good behavior when they are spanked for misbehaving (χ^2 = 19.6, DF = 4, p =<.000), and that you can teach children not to hit by hitting them back (χ^2 = 30.1, DF = 4, p < .000). There was no significant difference between the responses of Hispanic and white women to these questions.

The Parental Stress Index (PSI) is a respected standard instrument designed to identify parent-child systems that are at-risk of dysfunctional parenting or behavioral problems of the child involved (Abidin, 1986). Eighty-eight of our teen mothers were given the PSI. Twenty-six percent of them received risk scores. That this great a proportion of these teen respondents received PSI risk scores is unfortunate, but understandable in view of the many personal and social stresses which and parenting teens are likely to face.

Seventeen percent of our respondents reported they had attended parent education classes, and an additional 15% reported they had received in-home information on parenting. In response to the question, "If there were a discussion group for parents that met regularly close to your home, would you attend?" 39% responded "yes"; 53% responded "not sure."

DISCUSSION: Our study suggests that almost all pregnant and parenting teens, regardless of race/ethnicity, marital status, or age, want and need a variety of kinds of information about nurturing and guiding their new babies. Many of these young women may especially need information on handling parental stress, using non-physical punishment, showing their babies affection and attention, and promoting their children's intellectual development.

The most common sources of information reported by our respondents were family and friends and professionals. Consideration should be given to making parenting information accessible to parents, partners, and spouses of these young women by including them in parent meetings and providing opportunities for them to read written parenting material. Additionally, good practical parenting materials might be given to teen-serving professionals to pass on to pregnant and parenting young women. That most respondents reported receiving their parenting information from multiple sources suggests that there might be value in using a variety of interpersonal and media methods to meet these educational needs, including pamphlets, television, and individual and group contacts. Since about two-fifths of our respondents reported that they would attend conveniently located parent education groups, special consideration might be given to finding appealing and practical ways to offer such programs. Maybe groups could be sponsored or co-sponsored by the WIC or AFDC programs, since many of these young women are already receiving services from these agencies.

Perhaps one of our greatest opportunities and challenges today is to find ways to provide all teenage mothers with the kind of information they clearly need and want. This deserves our time and talent. The audience is ready; the information is at hand and the stakes are high.

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Discussion *Terrance Olson*

Yesterday, as I listened to Urie Bronfenbrenner, I was reminded of some major concepts of Head Start. First, he indicated that Head Start was something that addressed the conditions of the time. A lot of children, because of environmental context and familial instability, needed help, needed a head start. Things have changed in 20 years -- both for the better and the worse. In evaluating what we do in Head Start today, we had better take into account how things have been transformed. Secondly, Bronfenbrenner talked about the role of science in helping us understand what we are about. There is good science and bad science. He said that a key feature of Head Start's success was being able to turn knowledge into know-how. With adolescent and pregnant parenting teens, seeing beyond ourselves is fundamental in turning knowledge into know-how. For primary prevention, reaching teens before they are pregnant or parenting, it is fundamental that they be exposed to something that helps them examine the meaning of human experience beyond the moment they are living in.

I am concerned that our field seems to be more and more guided by research design than by philosophy and theory. We figure out a design, and then derive a question we can ask that that design can answer. This is instead of taking a theoretical, philosophical view of something -- a conceptual model, Bronfenbrenner would say -- and then designing a method to address the meaning that we want to see. When we do it the other way, method drives the direction of our research, when theory, philosophy, and experience ought to be driving it. As I look at the journals, I think we are being driven by design and method, rather than by the value of the questions we are asking. We need to return to Einstein's reminder that the permission to ask certain questions comes out of theory and not out of method. We get so caught up when we see at-risk factors among teenagers that we forget the underlying theoretical issues and that these at-risk kids are a minority of the total population out there. We should remember not to become overwhelmed by the idea of intervention. The people that come to us are the ones in dire straits. They are still a minority of the total population in their demography, IQ, SCS, or education. Negative outcomes may be significantly different for the comparison groups that we use in our research, but we have to remember that the at-risk group often constitutes a minority of the whole group. Cudaback's slide that listed the sources is itself a teaching tool. She is already doing family life education with those pregnant and parenting teams. In a sense, we teach them all the sources in a sense, by asking them about it. We are teaching them with our preconceived categories, and thus are expanding their understanding.

It seems to me that we are constantly trying to explain results in terms of factors beyond our studies. Are our studies, are our interventions, having any impact at all? The research says they are not. In a decade, the explanation as to why things don't work became a reversal of what we claimed was the need for the programs in the first place. With regard to Head Start and what we are talking about today, I do not think you could find very many people on the street who would disagree with our findings. We may be documenting the very thing that people tend to feel was common sense. The big question is: What can we do to make a difference? After spending the time, money, and effort to establish that we are addressing the right things, including cognitive readiness, we find that our initial attempts at affecting this are not showing results.

This leads me to ask: When you turn knowledge into know-how, what variables can be affected by an intervention? If you want to design an intervention, or if you are a Head Start worker who wants to make a more powerful difference based on the work of today's presenters, what are you going to do with IQ? What are you going to do with socio-economic status? What are you going to do with race? What are you going to do with age? What are you going to do with a social support system? What are you going to do with education? Education and social support system seem to be the two variables most amenable to change, most logically possible to alter. The way we try to do that is by giving skills and techniques. Those are probably secondary to offering attitudes, i.e., to addressing adolescents' attitudes. I find that this is done more powerfully by narrative experiences -- by giving vignettes, case studies, examples, by conducting discussions of meaning rather than presenting fact.

In one of our adolescent pregnancy intervention sites in New Mexico, we were struck by how often teachers doing prevention programs were trying to rely on facts, percentages, knowledge, and vocabulary. These translated easily into tests; they could be run off onto handouts or shown in a film or video. There was no discussion of the richness and the depth of human experience, which Borkowski called for in his paper. We have to restore a richness to the way we study things, and not define variables so narrowly that they separate themselves from human experience.

The paper by Nitz and Brandt feeds my prejudice and supports my commitment as a scientist. I believe that all scientists are prejudiced and that if we would acknowledge that we would do better science than by pretending we are all being objective and value-free. The reason this paper feeds my prejudice is because the authors advocate a contextual, or a familial, model as do the papers by Leadbeater and Borkowski. Taking into account the familial context is something we have got to reach in interventions if we are going to make any difference. However, to operationalize variables is often to sterilize. By this I mean that we remove our understanding from everyday experience.

In our own work, we have given students vignettes to comment on and then have done content analysis of them. Here is one example: You are Christmas shopping with your grandfather, who is retired and has some Social Security money. He earns extra income by painting grocery store signs. While shopping with grandpa, you notice that he takes a bottle of perfume off a counter and slips it into his coat pocket. We then ask, "Of all the things you could do in this situation, what do you believe would be the right thing to do?" Asking that question leaves it totally open. It makes it an ethical and moral issue. None of the adolescents says, "Hey, it's none of my business," which, in terms of cognitive moral development, makes a lot of sense. It also means that the students take for

granted that it is a moral issue and that it is clearcut. Some students get creative in responding and say, "We would go to grandpa and say, Grandpa, you don't want to do that." Or they say, "Grandpa, should we go pay for that perfume, now?" Or, "Grandpa, I think I have enough money for that perfume," or, "Were you going to pay for it with your own money?" Several of the students said that they would not do anything then, but would take the perfume back to the store later and pay for it themselves. The reason for this was to avoid embarrassing grandpa. This is a rich response to a very simple human experience. We try to take additional vignettes like that and weave them into intervention studies so that they are not sterile, objective, factual things, but are contexts of meaning and of connectedness.

As Bronfenbrenner says, "Every child deserves to have at least one person raising him that is absolutely crazy about him." Our experience with intervention is that every child that is going to be in Head Start deserves to have every teacher, every social worker, and every intervener absolutely crazy about him or her.

So, what variables can we address? Attitudes, beliefs, and behaviors are the most fundamental ones we can address. The other things, if we pay too much attention to them, will convince us that we have little to say, and little possibility of intervention. If we focus on attitudes, beliefs, and behaviors, we are O.K. To do that, we have to suspend the philosophical model we use in research, which is cause and effect, which says that Jimmy John is like he is because of his wicked left-handed stepfather, or whatever it is, and substitute that model for a model of hope that says you can change in the present moment, you can act in behalf of the next generation, you are not trapped. The students we fail with are the students who will not give up the idea that they are trapped in their network, their connections, their past, their history, their circumstance. The other students we can convince that they can make tomorrow different than today, that change in attitude is fundamental to our having success. I would counsel people that are interveners to take the facts of the presentations you have heard today and ask yourself the question, "How could I transform this knowledge into know-how that makes a difference with adolescent parents?" I believe it requires, in many ways, revolutionizing or radicalizing our research assumptions, and leaving them behind, in order to offer a hope for tomorrow. It's interesting, since our goals and dreams for these folks have no logical place if we keep our cause and effect model that guides our research with us when we try to do intervention. We have to use the research data for understanding, but can't take them too seriously for explanation. Explanation is the cause and effect that traps youth. Understanding is moving into their world in a way that allows us to open it up to something else in the future.

Panel 118 ISSUES IN CHILD CARE: 1990

Chair: **Sandra Scarr**; *Discussant:* **Urie Bronfenbrenner**

INTRODUCTION

We will report a group of related analyses on quality of child care in 120 centers in three states. But before we begin, let me describe the sample. Our sample includes white and non-white families. However, of those who purchased child care in these centers, only 12% were non-white, with the majority of these being Black. Although there is a mixture of Hispanics and Native American groups, it is mostly a white sample. Most parents are married (89%). In the single group, more were non-white. Except for the family data, we are presenting data for married parents who can afford to pay for child care. The median family income for these randomly chosen centers -- centers in the greater Atlanta area, central Virginia, and eastern Massachusetts -- is about $62,000. Incomes for people who purchased center-based child care in Georgia are much lower than those in Massachusetts or Virginia.

These are ordinary parents. They have an average of one and a half children. The mothers have about three years of college; the fathers have almost four years of college. Mothers are in their early thirties and fathers are in their mid-thirties. This is middle America, purchasing child care. Most of the parents are employed. All the children were in child care at least thirty hours a week, whether they were infants, toddlers or preschoolers. These are people who use child care because of employment, with a few students in the sample.

This study is sponsored by the National Institute of Child Health and Human Development. We collected all the data as of last Fall, but we are still in the process of analysis, so we are reporting only some of the data. Urie Bronfenbrenner will be our discussant.

Public Policy, Quality of Child Care, and Children's Development *Deborah Phillips*

Quality is like happiness. Everyone wants it, yet its attainment is elusive. With respect to child care, this disparity between hope and reality is particularly striking. Few would argue that quality is not a desirable commodity in the care of young children, yet pressures to expand the supply and depress the cost of care have consistently shortchanged efforts to improve quality of care. Quality has become a central topic of study among developmental psychologists. This empirical literature on child care quality, while contributing substantially to our understanding of the basic predictors of child care quality for children, provides minimal information about the quality of child care options that face parents when they set out in search of care for their own child. A pivotal issue in the

current debate about infant child care and a critical issue for children of all ages, concerns the level of quality that developmentalists consider to be adequate.

The first purpose of the Child Care and Family Project was to assess and document the range of quality that characterizes a large representative sample of child care centers in three states that have widely varying child care standards. A second purpose focused on questions of child care auspice. New evidence has documented consistent differences in quality of care in for-profit, and non-profit centers, favoring the non-profit sector. Yet none of these studies combined observational assessment of program quality in a multi-site design and a large sample of centers that operate as for-profit chains, as well as a sample of church-sponsored centers, including a set that is not regulated. The Child Care and Family Project was designed to rectify this gap in the literature.

I will be presenting some data to answer the question, "Do centers that operate under different legal and financial auspices vary in the quality of care that they offer to children?" A shortcoming of the existing literature on child care quality is its restriction to single site studies, with the exception of the National Day Care study which is now outdated, and the National Child Care Staffing Study. The present study is, in part, a replication of that study. If we take ecological models of research seriously, it becomes critically important to consider the policy level influence of child care regulations on the quality of care that is provided in any given site. States vary tremendously, but systematically, in the baseline level of quality that is mandated by state regulations. When we collected our data, center-based care in Georgia, for example, was legally permitted to operate with much poorer staff-child ratios (a ratio of 1 staff to 7 infants) and operate with much less adequately trained staff than was true of center-based care in Massachusetts, which requires a caregiver ratio of one to three.

The study had a third purpose: to compare the quality of care that exists across states with widely varying child care regulations, including Massachusetts (which has among the most stringent regulations), and Georgia (which has among the most lax, of all the fifty states). We also compared the quality of care that we observed with the National Child Care Standards that were adopted in 1980 but were rescinded a few months later, and the accreditation guidelines of the National Association for the Education of Young Children. (I will be focusing exclusively on staff-child ratios.) In sum, we studied three issues about child care quality today: the range of quality in center-based care; variation in quality by auspice; variation in quality by stringency of state regulations.

The quality measures that I will be focusing on are overall environmental, global, and comprehensive indices of quality including staff turnover, as reported by the directors of the centers; the highest wage paid to a classroom teacher in the centers that we visited; the educational level of the teachers; whether they had any specialized training; and our actual observations of ratios and group sizes. At several points during our visits, we counted children and adults and then averaged them to get our measures of ratios and group sizes.

The participating classrooms encompassed a very wide range of quality on each of our assessments. On the first two measures of quality, using the Harms-Clifford measures, the actual range is from 1.0 to 7.0. A score of 3.0 on that scale is considered minimally acceptable. A score of 5 indicates acceptable quality. The means indicate a wide range, but generally mediocre, quality of care. We also looked at the percentage of classrooms by age of child in each state, that fell below what is considered minimally acceptable (3.0). For the infants, 77% of the classrooms in Georgia and 84% of the classrooms in Virginia fell below 3.00. It gets a tiny bit better for toddlers and quite a bit better for preschoolers. Massachusetts looks substantially better than Georgia and Virginia.

If you look at staff-child ratios, the numbers (on the slides) are not immediately interpretable. But if you look at the infants in the .09 to .75 range, it means we saw as many as ten infants cared for by one teacher and as few as three infants with two teachers. In toddler classrooms and preschool classrooms, we also had very wide ranges in both ratios and group sizes. In terms of staff qualifications, again we found wide ranges. The typical teacher had some college. We had teachers with no high school diplomas and some with graduate degrees. Most teachers had received some specialized training, with high school and vocational education classes predominating. Almost 20% of the staff at each site had received no in-service training in the year prior to data collection. Teacher wages were extremely low, with an average across all ages of children of about $7.00 an hour. Finally, staff turnover was extremely high. Across all classrooms, the average annual turnover rate was 37% to 39%. This corresponds very closely to the 41% turnover rate reported in the National Child Care Staffing study.

These data raise grave concerns about the typical level of quality in our nation's child care centers and about the range of quality that is tolerated in regulated child care. This is a sample of centers that represents the everyday options that are available to primarily fee-paying parents in this country. This is not an inner city sample of centers. In general, the non-profit, non-church centers offered the highest quality of care in each of our study sites, regardless of the indices of quality that are examined. In Georgia this characterizes the two overall environment ratings, as well as wages, which are much higher in non-profit, non-church centers. In Massachusetts, this was true of wages. In Virginia, it was true of ratios, but only for toddlers and preschoolers. In two sites, Georgia and Virginia, where we were able to obtain samples of church-sponsored centers, the quality of care they offered was found to be of relatively low quality, particularly on the global indices. However, these differences were not significant. A more important point is that when we compared the church-sponsored centers in Georgia that are regulated, with the church-sponsored centers in Virginia that are not, we found they both offered relatively poor quality care.

Turning to site differences, with a particular focus on ratios, we found the centers in Massachusetts operated under very stringent regulations. In contrast, the centers in Georgia operated under very lax regulations, and those in Virginia operated in a

relatively mixed context. They were held to relatively more stringent ratio regulations, but very lax training regulations. An assessment of enforcement indicated that Virginia was not very good about enforcement of the regulations, relative to the other sites.

There are some interesting patterns here. The centers in Massachusetts stood out as offering the highest quality of care. This characterized not only the variables that correspond to regulated aspects of care ratios and group sizes and teacher training, but also to aspects of care that are not directly regulated. The comparisons between Virginia and Georgia present a somewhat complicated picture. The infant ratios, which are regulated more stringently in Virginia, were indeed observed to be higher, that is, better, in Virginia than in Georgia. Training, which is regulated poorly in both sites, was found to be lower in Georgia. Over 20% of the teachers in both sites reported no in-service training in the twelve months prior to data collection. In addition, 13% of the teachers in Georgia did not have a high school diploma, compared to 1% in Massachusetts, and 4% in Virginia.

One final set of findings looks at the percentage of classrooms by the age of children that were out of compliance with their state ratio requirements. In Massachusetts, where they have the most stringent regulations, they also had the most classrooms that we observed to be out of compliance. That reinforces what we all know about the importance of enforcement: Stringent regulations do not guarantee quality. We also looked at the percentage of classrooms that failed to comply with various national standards -- the HEW day care regulations and the NAEYC accreditation guidelines. Neither of these are enforced or in place right now; the accreditation guidelines are completely voluntary. But a very large percentage of classrooms are out of compliance with what children really need to thrive in child care.

Mothers at Home and at Work: Stress and Coping Strategies *Marlene Eisenberg*

The expansion of women in the workforce has prompted a move from the belief that work and family are separate worlds, to the development of a growing body of research that emphasizes the presence of systemic linkages between these life roles and their respective settings. Concomitant with the recognition of these linkages has come the acknowledgement that there are circumstances under which multiple roles and responsibilities may be difficult to negotiate. How are the majority of working women dealing with the work-family interface and what processes facilitate that adaptation? We are proposing a model which focuses on the process of adaptation and adjustment in two groups of working mothers.

Strategies of coping are proposed as mediators between perceptions of work and family life and perceived subjective well-being. Subjective well-being has been chosen as the measure of functioning for two reasons. First, it is a global construct through which multiple patterns of adjustment can be filtered. It is an interdisciplinary dimension, well-suited to the setting-spanning quality of the work-family interface. Second, subjective well-being is a "strengths-oriented" approach, because it reflects the functioning of the majority of working mothers. The measures in this investigation included the following five global dimensions: the structural characteristics of work and family life; subjective characteristics of work and family life; perceived work-family interference; coping strategies; and subjective well-being.

Approximately 25% of the mothers worked part time. Fifty percent of the sample had a 40 hour work week and another 25% worked more than 40 hours a week. Fifty-eight percent of the mothers worked full-time before their pregnancy; 20% worked part time before their pregnancy. Another 22% did not work at all before the birth of the child. Once back at work, approximately 40% of the mothers worked part time, while 55% of the mothers worked full-time. We were also interested knowing about the pattern of employment immediately after the birth of the child. We found that a full 80% of the sample were employed in different jobs at different places. Twenty-eight percent of the mothers returned to the same place, but with different jobs, and only 16% returned to the same place and job they had before the birth of the child.

We were also interested in looking at differences between married and single mothers, on some of the major demographic variables of interest. We found group differences on every demographic variable investigated. Single mothers were younger in age, had older children, were less educated, lived on lower incomes, had lower scores on the WAIS vocabulary subscale and tended to be non-white. They also had a higher proportion of preschool-aged children. Clearly, single working mothers appear to be at a distinct disadvantage in a number of areas. However, there were no mothers in the sample that achieved a life stress score of seventeen or above, a score that would indicate considerable stress. The highest score any non-married mother recorded was a ten, which shows that this is not a highly stressed sample. The constellation of differences between married and single working mothers indicated that other factors, such as race, might be masquerading as differences in marital status. But analyses revealed that the inclusion of the small sample of non-white respondents did not distort the investigation's findings, and so they are included in the analyses.

Are single mothers more stressed than married mothers? Statistically reliable differences were observed between the groups, with single mothers reporting lower levels of subjective role expectations and greater dependence on the job for basic necessities than did married mothers. There were also reliable group differences in the degree to which married and single working mothers used negative coping strategies, with single mothers using negative coping strategies significantly more than married mothers. There were no reliable group differences in the use of positive coping strategies, nor were group differences observed for the dimensions of satisfaction with structural characteristics of jobs, with work-family interference, or role confinement.

The next step was to look at the different patterns of adjustment found within the two groups of working mothers. Multiple regression models were analyzed, using structural equation modeling, which allow for the formulation and testing of hypotheses concerning causation. Three models were tested for each group of working mothers: a null model, a direct effects model, and a

mediated model. The null model tests the hypothesis that none of the predictor variables have anything to do with the outcome variables.

When we looked at the correlation matrices for single mothers, we found the predictor variables generally were not very good predictors of mothers' subjective well-being. The most important predictors were the mother's perceived role confinement. That is a dimension which spans all the different roles, with items such as, "I want a place of my own. It doesn't matter whether I'm stuck in work or I'm stuck at home, I just want my own space." In the mediated effects model you find that perceived work-family interference and role confinement are also very significant predictors of positive coping.

The mediated model looked at coping as a possible process mediating how people perceive their reality and how they feel about themselves. What we find with the single mothers is that the path from negative coping to subjective well-being was highly significant. Interestingly, the path from positive coping was not significant at all. If you look at these same two paths for the married mothers, you find there are relationships of both positive coping and negative coping to subjective well-being. My interpretation is that single mothers are able to use positive and negative coping, because the paths from the predictor variables to positive and negative coping were significant. They were using those coping strategies, but they were not translating them into successes. The married mothers have enough other resources to accept the fact that they did a good job and translate it into a feeling of satisfaction. The single mothers are stressed; they want to succeed, but it is not translated into success for them.

Variations in Quality of Child Care Centers and Effects on Children's Development *Sandra Scarr*

We have a complex of child care variables in the centers and we have a set of variables in the family that predicts stress, coping, and well-being. But all good things are correlated; we need to be worried about the degree to which we have confoundings among family variables, child care quality variables, and child outcome variables. For example, there is some agreement between mothers and fathers in views of child rearing. Mothers who hold very traditional attitudes about child rearing tend to be authoritarian and are married to fathers who have similar views. Those mothers also have rather low WAIS vocabulary scores. (Authoritarianism generally is negatively correlated with IQ.) Mothers' education, WAIS vocabulary score and family income are all a complex of socioeconomic family background characteristics that are confounded.

Our quality variables are also related to one another. Those centers that have low ratios also tend to have small group size. Those that have good ratios, that is more adults per child, also tend to have smaller group sizes. The child outcome variables are not independent either. When parents rate their children as "easy" on the Parenting Stress Index, they also rate their children as being more securely attached on a different instrument. The child also is rated as being less dependent, less emotional, more sociable and less shy. There is a complex of "good kid" characteristics, as far as parents are concerned. When dealing with these characteristics, one should not think they are independent of one another. Parents also agree on their ratings of their child's behavior. When the mother says the child is emotional, the father tends to agree. Ratings of sociability, activity, and shyness are in the same range. Parents agree enough on these ratings that we feel fairly comfortable averaging the parents' ratings.

However, parents and teachers who see children in different contexts are seeing a somewhat different child. The parents and teachers do not agree on the child's emotionality or sociability. However, they do have some agreement on the child's activity level and shyness. You should keep in mind when looking at these parent and teacher ratings, that parents tend to agree with each other, so we have averaged their ratings. But parents and teachers do not agree enough to do that. Seeing these children in different contexts makes a difference.

Here is the typical outcome for our parents' data. I have done these as backward regressions by putting all the quality and family background variables into the equation and removing those that do not add to the overall R^2 and prediction. A child's shyness is not a very good predictor. It only accounts for 7% of the variance. With 700 children, we have very reliable results. Parenting stress is an enormously important factor in parents' ratings of children's shyness. Those parents who are more stressed have children they report as shyer. But children who are in centers with lower quality scores are also shyer. Parents who have progressive attitudes and lack traditional attitudes have children who are less shy. Again, good things go together. Better quality centers have parents who rate their children as less shy. Parents who have low stress say they have sociable children. Parents who have progressive attitudes say they have more sociable children and traditional parents have less sociable children. In the case of the teacher-child ratio, the better the ratios, the more sociable and outgoing the child. The better the quality of the center, the more outgoing and sociable the teachers say the child is. The more progressive the parents are, the better the kid is. The cross-situational findings suggest to me that we are looking at a stable characteristic of children, i.e., a developmental phenomenon, and not entirely a situational phenomenon.

The Quality of Caregiving Environment and Children's Socio-Emotional Development *Kathleen McCartney*

There is currently a controversy concerning whether or not infant day care is a risk factor for children's socio-emotional development. This controversy began in 1986, when Jay Belsky published a provocative review of the literature. The studies that Belsky reviewed are hardly definitive and there are a number of critics who drew attention to the fact that the studies were, and still are, mostly non-experimental. Thus, potential third variables related to infant day care seemed likely. Although researchers would like

to discuss the effects of day care, all we can really do is discuss what happens when day care is part of a broader social ecology. In this report, I will focus on attachment security as an outcome measure.

Attachment theory predicts that extensive separations from an attachment figure should result in anxiety or insecurity. The problem is that it is not clear under what conditions separation is detrimental to emotional development. Existing research shows that extensive nonmaternal care in infancy is associated with higher rates of avoidance in a strange situation for children in day care. However, for children in day care, this avoidance could reflect a defensive reaction to mothers or simply independence, as Clarke-Stewart has suggested.

Because of the questionable validity of the strange situation for day care samples, we chose an alternate measure, the Waters Child Behavior Checklist. We predicted that any effects of separation associated with maternal employment would be moderated by the quality of the caregiving environment at the day care centers. I am going to operationalize quality of the caregiving environment with three subscales from the Assessment Profile for Early Childhood Programs. Those subscales are: Interacting, Individualizing, and Learning. These three scales were related to other quality indicators. They were correlated with the highest wage per teacher in the center (rs ranged from .34 to .40). They were also correlated with teachers' education. We operationalized separation from mothers by two maternal employment variables: the number of hours mothers were employed during the first year of her child's life and the number of hours the mother was currently employed. The model included other measures of maternal employment and family background as well.

I started by thinking that we have two primary environments: the family environment and the day care environment. My first question was, "Is the quality of the caregiving environment associated with family background variables?" As a simple first test I correlated the three measures of the caregiving environment with twelve measures of maternal employment and family background, separately for infants, toddlers, and preschoolers. I wanted to see if the slopes were the same for the three groups. For the infants, four of the 36 correlations were significant, but only two had moderate effects, which I define as r=.20 or better. Parents' traditional values were negatively associated with the Interacting and Individualizing subscales. For toddlers, 11 of the 36 correlations were significant, but only one had a moderate effect. Traditional values were negatively associated with the Learning subscale. For preschoolers, 10 of 36 correlations were significant, but none had an effect size greater .20. Parental traditional values is more highly correlated with the quality of the caregiving environment than are some of the more demographic indexes of family background. Probably, parental values are an important self-selection factor.

Is the quality of the caregiving environment associated with children's attachment security? In order to look at this, I used hierarchical multiple regression models -- one for infants, one for toddlers and one for preschoolers. For infants, the first group of maternal employment variables account for little variance (about 2%), and the model was not significant. Note, however, that the variable, "number of hours currently employed", was significant. Mothers who were employed more, rated their children as more secure. There was some variability on this index. The scores range from 8 to 85 hours per week, but the average number of hours worked by mothers was 40 (s.d.=8). Only 18 mothers were currently working less than 30 hours.

The model becomes significant in the next step, when the family background variables are entered. Two additional predictors appear: the Child Domain subscale from the Parenting Stress Index, and the Traditional subscale from the Modernity Scale. At this point, we are accounting for 23% of the variance. It is important to determine how this Child Domain Subscale is independent from an assessment of attachment security. There are five subscales from the child characteristics domain. All five are significantly correlated with attachment security. Two of them had moderate effect sizes. Mood was negatively correlated with security (r=-.49). Mood items assess things such as unhappiness and depression and extreme scores have been predicted to impair maternal attachment. Security was also negatively associated with child Distractibility (r=-.32). Distractibility assesses behaviors associated with Attention Deficit Disorder. The next set of variables, the child variables, added an extra 6% to the explained variance and we have Emotionality becoming a negative predictor of attachment. Currently, there is a debate about whether or not attachment security and temperament are independent. On the basis of our data, measuring attachment with a child behavior checklist, we are finding that attachment security does seem to be related to temperament. Finally, the variables assessing the quality of the caregiving environment were not significant and did not add a significant amount of explained variance.

The results for toddlers are similar. Two variables are significantly related to attachment security: job satisfaction and two temperament variables. Again, none of the child care variables predict attachment. We obtained similar types of results for preschoolers.

These results are preliminary and I am not prepared to conclude that maternal employment in the first year of a child's life is unrelated to attachment security. But to summarize, I would like to make three quick points. First, on the basis of these data and these analyses, attachment security does not seem to be related to maternal employment in the first year of life. Second, children's attachment security does seem to be associated with other characteristics of the child, particularly with the Child Domain subscale. It is not clear to what extent the subscale assesses an independent construct from that of attachment. Attachment security was associated with two indexes of temperament -- Sociability and Emotionality -- so it may be that certain temperaments place children at-risk for the development of insecurity. Attachment theory links variations in the caregiving environment provided by attachment figures with variations in children's security; the theory makes no claims about the role of the children themselves. Finally, what I found in these very preliminary analyses is that the quality of the caregiving environment in day care centers was unrelated to

security. We also have data regarding children's attachment to teachers, which will allow us to see if children's relationships with teachers is predicted by variations in the child care environment.

Indices of Quality in Center-Based Child Care as Related to Social Competence in Three- and Four-Year-Olds *Martha Abbott-Shim, Deborah Wilkes*

One of the purposes of the present study is to examine the relationship between child care program features and a child's perceived social competence. The results I present examine the relationship between 3-, 4-, and 5-year-old children's perceived social competence and program features, such as quality of care, the auspice of the child care center, staff turnover and global ratings of teacher performance.

A correlation matrix was constructed that included indicators of quality care and child's perceived social competence, age and sex. The indicators of quality care in the matrix were: the Assessment Profile of Child Care Quality and the Administration part of the Profile and the Early Childhood Environment Rating Scale total score; auspice of the child care programs; Perceived Social Competence total score (as measured by Harter and Pike's instrument using the child's perception); and age and sex. The correlations were between the quality measures. As expected, there was a significant relationship between the Perceived Social Competence and child's age. There was also a weaker, significant association between Perceived Social Competence score and the Assessment Profile Administration total score. For the preschool children, there was a correlation of .80 between the Cognitive Competence subscale and the Interaction dimension of the Assessment Profile. Regression was used to test the prediction regarding the perceived social competence for this group of children. Our data show that the Interaction dimension was most predictive of Cognitive Competence for this age group. Correlations also were computed between the subscales of the Perceived Social Competence measure and the dimensions of the Assessment Profile. Personnel and Management were the dimensions on the Assessment Profile that had a significant association with Cognitive Competence, Peer Acceptance and the Physical Competence subscales on the Harter and Pike instrument. Stepwise regressions were run to determine the aspects of the child care environment that predicted a child's perceived social competence. The Personnel dimension of the Assessment Profile Administration measure was the most predictive of each of the respective perceived social competence factors. (The significance levels were greater than $p=.05$.) Still, a large amount of variance was unexplained.

Discriminant analysis was used to test the hypothesis that quality group membership can be determined by using the auspice of the child care program, the Perceived Social Competence scales, age, sex, accreditation status, director education and global scores of the teacher. These aspects were the independent variables in the Assessment Profile. Preschool and Administration combined total score was the independent variable. Quality group membership variable was determined with inadequate quality being below a total score of 203, adequate quality being 204 to 261, and high quality being over 262. For each of these three groups there are differences in the means of the subscales of the Perceived Social Competence measure. Our data show that Peer Acceptance and Cognitive Competence contributed the most to group membership, while sex contributed the least. The second discriminate function accounted for 19% of the variability between the groups, with Cognitive Competence, Peer Acceptance, Physical Competence, and Teacher Positivity contributing the most to quality group membership. Using these two discriminate functions, 71% of the preschool children were correctly assigned to quality care groups. These results indicate that aspects other than the quality care indicators used in these analyses contribute to the child's perceived social competence. The relationship of a child's age to perceived social competence is consistent with other research.

Within the 5-year-old age group, the only direct link to classroom quality is found to be the Interacting dimension, which assesses the teacher's ability to initiate positive interactions, be responsive to children and provide positive management skills. This relationship to cognitive competency seems logical, for as the child increases in age, so do his cognitive skills. When the 5-year-old age group was not considered as a separate part of the preschool group as a total, the only relationship shown was with the Personnel dimension. This Personnel dimension looks at staff-child ratios, staff training and the director's support of staff in the child care environment.

The data analyses have not yet uncovered a strong link between the classroom environment and perceived social competence. This may be true because the age of the children used included a larger proportion of the 3- and 4-year-olds than the 5-year-olds. Stronger classroom links may be found after the analyses with observation-interaction measures, because they include a much more comprehensive picture of the observed classroom interactions. Finally, the elimination of items on the Assessment Profile that do not contain a wide range of variability may provide a more definitive picture of what is occurring within this population of child care centers.

Discussion *Urie Bronfenbrenner*

Here we see an illustration of a difference between those trained in the scientific tradition, and those who are the explorers of uncharted domains. It is a very low-key report. What you have heard is substantially underestimated and reflects caution. These models of analyses all assume additive relationships. The whole nature of development, and the whole nature of the way in which the environment affects development, is synergistic; it multiplies. When you use an additive model, you are missing the multiplicative effects which are there, because of the nature of development and the nature of the human organism and its interaction with the

environment. What you are missing is how the quality variables affect everything else. Structural models, or so-called causal models, are worse in that regard. I am suggesting that, if you use an appropriate model, you will discover that the quality of care has a much bigger effect than zero-order correlations indicate and a much bigger one than the regression models indicated. While I do not know that for a fact, I have been reviewing a lot of research in order to find out what happens when you put process in a model -- a person-process-context model. Process is defined very specifically here. What I have been seeing is that process accounts for more of the variance than anything else. The reason why context -- child care, family, one-parent, two-parent and all that -- becomes very important is that context affects how efficiently the process can operate. Process is what makes the difference and the correlations with process, as defined here, tend to be quite high, above .30 and .40.

Now what is process in this sense? Process is a measure of the interaction of an active organism and its responsiveness to the immediate environment in which it is a part -- the child care center, the family, the play yard, whatever it is. This process occurs in time, both in the period of the interaction itself and its regularity. These processes are very powerful and they are not unidirectional. They reflect the extent to which the child responds to the environment that is presented. To what extent is the child responding to what the other person does? To what extent does the person respond to what the child does and does the interaction continue going back and forth? I am suggesting that we would find that there are very powerful things occurring in child care centers if we used these kinds of models and measures. To what extent does a given setting allow for that kind of process to operate? The thing is to look and see whether those processes are occurring. That is when we will discover that child care outside the home is very important, and the child care within the home is very important. They affect each other; one affects the other.

There is a second aspect to these matters which turns out to be very critical in the research I have reviewed. It is the degree of disorganization in the immediate environment. The hecticness, the "interruptedness" of what happening in the home, and/or in the child care center. We are developing a society in which "interruptedness" is the name of the game. It affects child care centers and family life. There are certain kinds of settings in which there is less of that, because they are more stable. They are more protected. There are fewer changes in, for example, personnel. That is a very powerful disrupter. It really knocks out the capacity of this process to accomplish what it can accomplish. Those are two suggestions that build on what you have seen here, in order to see where things might be happening. The next step that I would invite this very able group of scientists to pursue is to go after that elusive "quality of care". What happens in these contexts? We have to see the process through which a difference is being made.

AUDIENCE DISCUSSION

There was audience discussion of factors such as whether mothers returned to work following childbirth by choice or necessity, that might affect the outcomes reported. Difficulty in defining and operationalizing "role-splitting" and "role fusion" also were mentioned. Other possible predictors of attachment included staff turnover and stability of care arrangements. Staff turnover itself was viewed as a complex variable, related to other variables such as wages and less tangible benefits -- like having an hour for lunch.

The problem of the interrelatedness of variables being studied (i.e., good things going together) was highlighted by a panelist. For example, mothers with traditional values pick lower quality child care settings and those with higher incomes pick better quality settings. The discussant suggested that the relationships among variables might differ within settings of different quality and that separate analyses might prove useful. This approach has been used in other research areas, with some success. Treating all groups together might underestimate relationships in some groups. This theme was echoed by an audience member who reported finding strong relationships between classroom processes and conversations and language and literacy outcomes in low-income children. Panelists agreed that their findings might have been different in a lower socioeconomic sample.

Panel 119 PEER CONFLICT AND DEVELOPMENT OF SOCIAL PROBLEM-SOLVING SKILLS

Chair/Discussant: **Nicholas Ialongo**

The Process of Peer Conflict in the Social-Cognitive Functioning of Pre-School Children

Joan P. Isenberg, Shirley Raines

Children, like adults, face daily conflicts and must develop constructive strategies for their resolution. With today's children entering organized group environments at earlier ages, understanding the role of conflict in children's development is crucial. In this paper we define conflict as occurring when "one person does something to which a second person objects; the initial act may or may not have been intended to harm its recipient" (Hay, 1984). Using this definition, conflict in the preschool can be viewed as a form of social interaction. Historically, the study of children's conflicts has been embedded in literature on behaviors occurring within the conflicts (e.g., aggression), and has been viewed as negative, undesirable, social behaviors. Consequently, early childhood teachers have sought strategies to prevent them from occurring, or to stop them when they do occur, rather than dealing with the role and nature of the conflicts themselves (Shantz & Shantz, 1985). In contrast, theoretical orientations developed from Piaget's (1965) and Vygotsky's (1978) writings, as well as research on peer conflict, provide a different conceptual framework. This framework views conflict as integral to social and cognitive understandings and identifies patterns of young children's conflicts.

Three major theoretical orientations -- cognitive-developmental, socio-cultural and socio-linguistic -- guide research that views conflict as a central element in children's construction of social and cognitive understandings. Cognitive-developmental theory (Piaget, 1965) suggests that peer conflict creates cognitive conflict, which, in turn, fosters individual cognitive development (Shantz, 1987). A socio-cultural view of cognitive development (Vygotsky, 1978) regards children's conflicts as problem-solving in social interactions. And socio-linguists (Brenneis & Lein, 1977; Eisenberg & Garvey, 1981; Genishi & Di Paolo, 1982) focus on children's disputes as a discourse phenomenon. The following three assumptions underlie these approaches to the study of preschool children's conflicts. First, peer interaction is an important arena for children's developing cognitive and social understandings. Second, play is children's primary vehicle for constructing knowledge about their world (Piaget & Inhelder, 1969; Vygotsky, 1978). And third, social interaction requires communicative competence, which serves both cognitive-academic and social interpersonal goals (Genishi & Di Paolo, 1982). These basic orientations guide the research that follows.

This review of the literature is limited to selected studies of young children below the age of 6 in group settings -- child care and preschool classrooms -- rather than homes. We answer the questions: 1) Who engages in conflicts? 2) Why do children engage in conflict? What causes conflict? When does conflict occur? 3) Where is conflict most common? and 4) How are conflict and resolution conducted?

Preschoolers tend to have more conflicts with their friends because they interact with friends more (Hartup, Laursen, Steward, & Eastenson, 1988; Hinde, Titmus, Easton, & Tamplin, 1985). However, among friends, there is less intensity, more compromise, and more socializing after the conflict. In addition to friendship, differences in conflict can also be attributed to gender. Boys tend to engage in more conflicts than girls and interact differently when the conflict involves gender differences (Hay, 1984). The "who" question also relates to whether the participants' tendencies to initiate conflict and their tendencies to comply remain stable over time. Hay and Ross (1982) found that dispositional factors were stable in 21-month-olds, and Emmerich (1977) concluded that preschoolers compliance dispositions were stable over time.

Young children have disputes over object possession and opposition in ongoing play. Since toys and materials are shared as a part of the social and physical environment of the classroom, these possession disputes account for much of the preschoolers' conflicts (Eisenberg-Berg, Haake, & Bartlett, 1981; Ramsey, 1986; and Strayer & Strayer, 1976). The amount of equipment or absence of toys also contributes to the frequency of possession conflicts (Eckerman & Whatley, 1977; Johnson, 1935). Some researchers report that boys' conflicts tend to include more object control disputes and that girls have more conflicts about person control (Dawe, 1934; Green, 1933; Shantz & Shantz, 1985). However, Laursen and Hartup (1989) and Sackin and Thelen (1984) found no differences between girls and boys for the reason for the conflict.

As children get older, their struggles over possessions change to struggles about play roles (Dawe, 1934). Between 4 and 5 years of age, conflicts were almost equally divided between conflicts over possessions and conflicts about roles (Eisenberg & Garvey, 1981; Genishi & DiPaola, 1982; Shantz & Shantz, 1985). As a child approaches the play group to gain access, opposition is possible, or if entry is gained then adjustment of roles within the play theme is required (Corsaro, 1981; Forbes, Katz, & Lubin, 1982). In addition, 4- and 5-year-olds associate certain play roles with "accepted" beliefs and actions. The roles are played with actions, words, and possessions; thus, the play episodes are rich for analysis of the reasons for conflicts and conflict resolution (Isenberg & Raines, in press).

Generally, studies of the physical environment have found that youngsters have more disputes outside than inside (Strayer, 1980). We did not find studies of conflicts in classrooms with a variety of designs and/or studies of areas within classrooms where social interaction is more likely to occur.

Male and female strategies for resolving conflict differ (Maccoby & Jacklin, 1980; Miller, Danaher, & Forbes, 1986). Males used threats and physical force significantly more often, while females tended to seek harmony (Miller, Danaher, & Forbes, 1986). However, when girls interacted with boys, their conflict resolution strategies resembled those of the boys. It should be noted that "how" young children conduct their conflicts can be described in a variety of ways -- by the length of the conflict, what is said or done, and how the conflict is ended or resolved (Laursen & Hartup, 1989; Much & Shweder, 1978; Sedlak & Walton, 1982). If the conflict included physical aggression (Sackin & Thelen, 1984) or highly insistent verbal exchanges (Eisenberg & Garvey, 1981), then the conflictors seldom continued to interact or negotiate a compromise. Young children's conflicts last only about 24 seconds (Hay, 1984; Dawe, 1934), and occur at about the rate of five per hour. Considering the number of interactions among children, this frequency is considered quite low (Shantz & Shantz, 1985).

Children interact primarily through verbal exchanges. These verbal exchanges are influenced by the sequence of events, the type of conflict, and the style of the participants. Brenneis and Lein (1977) described the progression of the conflict as dependent upon the loudness of the arguers and the absoluteness with which they stated their case. Eisenberg and Garvey (1981), as well as Phinney (1986), found that older children justify their actions, telling why they oppose the actions of the initiator of the conflict. They also found that older preschoolers negotiate more with their same-age peers than they do with younger children.

In conflict resolution, who settles the conflict, who gives in, what happens in the aftermath, when the children interact again and under what circumstances, are all important questions. How the conflict is conducted depends upon the specifics of individual behaviors, social situations, and the problem-solving and language abilities of the participants. As might well be summarized by the

previous review of studies, the outcome and resolutions are dependent upon the age, gender, nature of the conflict, and the style and behavioral tendencies of both the initiator and the opposer (Isenberg & Raines, in press).

In general, we know that all young children have conflicts, but boys and girls interact differently with their same gender and opposite gender. Friends, because they interact more, have more conflicts, but they resolve them differently than non-friends. The descriptive studies tell us that young children have conflicts over objects and over role expectations, particularly in play situations. Conflicts occur more often outside than inside. Perhaps the most intriguing question is that of "how." The conflict dynamics and the resolution dynamics point to many variables that must be considered when describing "how" young children engage in and resolve conflicts. Descriptive studies of "how" must be analyzed based on the: precipitating cause; antecedent events; actual conflict event, including sequence of verbal exchanges and types of exchanges; communication of the opposition; style of the participants; nature of the resolution; and aftermath of the conflict (Isenberg & Raines, in press).

The major findings from the literature suggest the following implications for practice: 1) the influence of teachers' beliefs; 2) the role of social context; 3) the role of play; and 4) the effects of teacher presence/absence. What teachers believe about the nature and role of preschool children's conflict influences their interactions with children, design of the environment, and strategies for promoting children's understandings. Teachers whose guiding principles emerge from the orientations described earlier believe in children's construction of knowledge that occurs in challenging and supportive environments. More specifically, they believe in the central role of a peer culture in preschool children's social and cognitive development.

Practitioners and program designers also need to consider the powerful influence of the social context. How children recognize and respond to social situations are indicators of their social competence -- a major goal of Head Start. Preschool environments that encourage children's cooperative conflict resolution promote children's prosocial understandings. Practitioners also need to understand socialization as an individual and collective process. In this view, children construct their own individual knowledge by interacting and negotiating with others within their own community of peers and adults (Bruner, 1986).

In play contexts, preschool children begin to negotiate social reciprocity related to gaining access to groups (Corsaro, 1979, 1985), maintaining group interaction (McLoyd, Thomas, & Warren, 1984), and structuring their own interactions (Corsaro, 1991). Here, Vygotsky's (1978) notion of the "zone of proximal development" suggests how teachers might "stretch" children's understandings and representations about their thoughts, feelings, and experiences. This "zone" is filled partly through children's social interactions with other people, one of whom is the present adult (Monighan-Nourot, 1991).

The few studies that address the effect of teacher presence or absence on young children's conflicts and resolutions (Laursen & Hartup, 1989; Hay, 1984) imply that teacher intervention often leads to less conflict, but also to less opportunity to develop conflict resolution skills. Because preschool children's shared culture is limited, they often bring their teachers into their conflict. The issue of how and when teachers should intervene in children's disputes is crucial. Teachers who intervene in access disputes and compel children to share play spaces and materials are often unaware of the nature and function of peer culture. This type of intervention serves only to frustrate children further. In disputes, children are not refusing to cooperate but attempting to continue the interactions with each other. Preschool teachers who are keenly aware of peer culture, who are sensitive observers and well informed, are best able to decide on strategies involving their presence or absence (Corsaro & Schwarz, 1991). The effect of teacher presence or absence in a conflict has particular implications for Head Start certified early childhood teachers, paraprofessionals, and parents who work directly with children everyday.

We suggest the following three areas for future research: strategies for teachers, language use in conflict situations, and social context. The literature has not adequately addressed the relationship of teachers' belief systems to the strategies they use for children to negotiate their own resolutions to conflict. Future research must address the nature of a constructivist and socio-cultural approach to conflict resolution, how we best communicate these frameworks to practitioners, and what the patterns of behavior interactionist teachers demonstrate during preschool children's conflicts (Isenberg & Raines, in press).

We do not yet understand the range of language use in the conflict situations preschool children encounter. Therefore, researchers must examine the forms and functions of language preschool children use to gain access to group play settings or to gain possessions, the forms of language children use to negotiate resolutions to conflicts, and how teacher language influences the course of the conflict.

We know that conflicts about possession decrease with age, whereas conflicts about the social structure increase with age (Shantz & Shantz, 1985). This points to the need to examine young children's behavior in different environments. Two questions that need to be addressed in this arena are: What are the features of the social context that support children's negotiation and resolution strategies? In what ways do these features promote children's socio-cognitive understandings?

In summary, given the increasing number of children in Head Start classes and early childhood teachers understandings of conflict and conflict resolution, the literature must begin to address the role of conflict in young children's developing socio-cognitive understandings. Cognitive-developmental, socio-cultural, and socio-linguistic orientations provide a strong conceptual framework for examining children's conflicts and resolution strategies. These constructs have direct implications for early childhood practice and practitioners.

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"I'm Going to Tell on You": Preschoolers' Strategies for Coping with Peer and Teacher Conflict

Laura V. Scaramella, Wendy C. Gamble

As the title implies, the topic of my talk is preschoolers' strategies for coping with interpersonal stressors or problems. I will describe what young children do and what they think when they experience problems involving peers and teachers. Research on stress and coping in childhood is a popular topic. Many youngsters served by Head Start will have experienced, or are at risk for experiencing, major, often traumatizing stress events. At some time these youngsters may live in poverty, may experience a parental divorce, are likely to spend time in a single-parent home, and may experience family violence and/or parental substance use and abuse. Ultimately, our goal is to understand how these stressors influence development and what youngsters and their families can do to cope with these problems.

Our research program focuses on what children do to cope with day-to-day problems. Efforts to identify processes associated with coping with everyday problems make sense for several reasons. First, adaptation to major life events or chronic problems is a complex process. Assessing efforts to cope with everyday stress should be a first step toward unraveling this complexity, due primarily to a smaller range of possible reactions. Second, because our focus is on common stressor events, youngsters should find it easier to report their perspectives on coping and event consequences. Information about coping processes during major stressor events may not be accessible. Reports can lack clarity due to the intensity of emotional involvement. Third, investigators working with adult samples have discovered that everyday stress or "daily hassles" can be significant with regard to overall health and adaptation, especially if daily hassles "pile up" (Kanner, Coyne, Schaefer, & Lazarus, 1981). It has been suggested

that daily stress may have a similar impact on children's and adolescents' functioning (Baer, Garmezy, McLaughlin, Pokorny, & Wernick, 1987; Lewis, Siegel, & Lewis, 1984). For example, the ability to cope effectively with common interpersonal conflict situations is recognized as an important component of social adjustment (Miller, Danhar, & Forbes, 1986). Thus, our research represents an attempt to document how preschoolers handle common conflict events as a means of building a foundation for determining how they cope with major stressor events.

An additional reason for assessing coping among preschoolers is that coping is assumed to be a significant buffer against the negative impact of stress. Factors believed to buffer against stress include age, gender, temperament, IQ, external support agents, family social and environmental milieu, and coping. Coping usually figures prominently on such lists. Coping stands out in a second respect. That is, most of the factors I just listed, with the exception of coping, are out of a child's control. A child has no say in what gender she is or what her temperament is like. Coping, however, implies that a child can take an active approach to overcoming obstacles faced in life by using a variety of responses. A related reason for examining coping processes is that, in comparison to the other buffer factors identified, coping can be taught, modified and changed. It is important to document what youngsters do, what strategies they already have in their coping repertoires, and when they use these strategies, so that we can design effective intervention/prevention programs. A movement is afoot to teach youngsters social skills and coping skills, yet the basic research is lacking. There is no sense teaching strategies that youngsters may already be aware of. The real issue appears to be understanding why youngsters select certain strategies and not others, and teaching children to identify and use effective strategies. There is an ever expanding literature on adult coping processes. Some information exists about how adolescents cope, and we know a little about school-aged youngsters. In contrast to these older age groups, virtually nothing is known about preschooler's experiences of stressor events and their coping efforts. Therefore, this research represents an early attempt to establish which strategies young children may employ for dealing with their problems.

We assume that interpersonal problem-solving is simply a specific instance of coping generally. When a real or imaginary problem exists, as used here, the term coping implies that there must be movement towards its solution. Coping refers to efforts to master, reduce, or tolerate the internal and/or external demands created by the stressor (Lazarus, 1966). The specific goals of the research include: 1) describing strategies children employ for coping with common, interpersonal stressors; 2) examining consistency of coping responses across event types; 3) determining if responses vary as a function of age, gender, and relative to appraisals of problems size; 4) examining correspondence among teacher and children's reports; and 5) examining associations among teacher's rating of youngsters' responses to specific events and more global ratings of competence.

METHOD: Sixty-six children participated in the study. Thirty-four were girls and 32 were boys. The children resided in a moderately sized southwestern community. All of these youngsters were enrolled in one of three preschool programs run by the Tucson Urban League. These are not Head Start programs, but they share similar goals and serve similar populations. Of the 66 children, 32% were Hispanic, 18% were African-American, 27% were Anglo. The remaining 41% of the youngsters were described by parents as having mixed ethnic backgrounds. For example, 11% were described as both Mexican-American and Anglo. The most frequently reported annual income level was between $5,000 to $10,000, and 21% of the families were receiving AFDC.

Children and their teachers completed questionnaires describing two kinds of interpersonal conflicts, specifically, conflicts with peers and teachers. Children worked individually with trained graduate and undergraduate research assistants from the University of Arizona, who read all the questions and response choices. These students used adult- and child-like ethnic dolls to depict conflicts children commonly experience involving peers and teachers. Interviewers used dolls to illustrate the following conflictual stories:

Peer: "One day you and your best friend are playing with a group of children. One of the other children, (child's best friend) says something really mean and nasty to you. I just told you a story, can you tell me the same story? You don't have to use the same words, just tell me the story as best you can."

Teacher: "One day your teacher is upset or gets mad at you for something you did not do. I just told you a story, can you tell me the same story? You don't have to use the same words, just tell me the story as best you can."

To ensure comprehension, children were presented with the dolls and asked to repeat each story as it was told by the interviewer. If a child was unable to repeat a story, the interviewer would reenact it, offering the child opportunities to reenact, until he or she was certain the child understood the situation depicted. After telling each story, the children estimated the problem size as small, medium, or large. Seven coping strategies were read aloud and evaluated by the children separately for each conflict. The youngsters responded "yes" or "no" to whether they would employ that strategy. The coping interviews lasted approximately 20 minutes. Teachers completed questionnaire items assessing the frequency of a child's use of each strategy during the two conflict situations. Teachers did not rate the child's perception of problem size. Teachers rated on 4-point scales how often the children would use each of the seven coping strategies in response to peer and teacher conflicts.

The seven coping strategies examined in this study were identified from existing research (cf., Band & Weisz, 1988). A review of the extant literature of coping strategies adolescents and children employ reveals an emerging taxonomy of responses. The present research explores the salience of the emerging categories of coping strategies for a younger sample. Children and teachers were asked if the child, when faced with interpersonal conflict, would "say something mean or nasty to the peer or teacher," "get help

from a parent or teacher," "get help from a friend or sibling," "ignore the peer or teacher," "find out what is wrong and fix it," "cry or yell," or "tell self that everything would be okay." Teachers also completed a modified version of the Early Coping Inventory (Zeitlin, Williamson, & Szczepanski, 1988). This instrument was used to measure the each child's overall social and coping competencies. Items were rated on a 5-point Likert scale ranging from "never" to "always."

RESULTS: In analyzing these data, our first goal was to determine which strategies children endorsed. Strategies reported by the children when faced with peer or teacher conflict were remarkably similar. The strategies most frequently reported by the children involved seeking help. Eighty-eight percent of the children said they would seek adult help for coping with a peer conflict; 75% for coping with teacher conflicts. Eighty-one percent of the children reported seeking help from peers after a peer conflict; 78% after a teacher conflict. Self-soothing strategies, i.e., "tell myself everything would be okay," were the second most frequently reported strategy for both peer and teacher conflicts, endorsed by 82% and 76% of the youngsters, respectively. The least frequently reported coping strategy was to "say something mean and nasty" to the target during both teacher and peer conflict. Crying or yelling was also reported less frequently as a coping response, with 61% of the children reporting crying or yelling during a peer conflict and 59% during a teacher conflict.

A striking similarity of responses becomes evident when examining the percentage of "yes" responses to coping strategies, regardless of event. Children seem to use the same types of strategies for dealing with conflict involving both teachers and peers. To confirm this apparent pattern of consistency, correlations among coping strategies across the two events were computed. Four of the seven correlations were highly significant, confirming the perception of consistency across events. "Saying something mean or nasty" to the peer or teacher was only marginally significant. "Getting help from a parent or teacher" and "telling yourself that everything is okay" were not significantly related.

Teacher ratings of each child's coping strategies were also examined for consistency across two conflict situations. With the exception of one strategy, ratings of the remaining coping strategies were highly statistically significant. Only the "ignore teacher or peer" strategy was not consistently related across the two events. While it may be possible to ignore a friend at school, it seems less plausible that a teacher can be as readily ignored during a conflict.

The goal of a third set of analyses was to determine if there was any correspondence between children's and teachers' reports of strategy use. For these comparisons, we examined correlations among teacher and child reports of each of the seven coping strategies by conflict event. No relationships were observed. That is, strategies reported by teachers and children were not correlated. It seems, then, that both teachers and children are consistent in their reports of coping strategies across two events; however, these two sets of reports are unrelated.

This discrepancy would appear to be significant with regard to developing problem-solving or coping curricula. That is, there are two ways to approach this subject matter. One is to teach children to identify new coping responses, while the other is geared to changing inappropriate coping behaviors or promoting the use of effective strategies. It seems apparent, at least for this sample, that the children already know about a number of different responses. That is, they have an extensive coping repertoire from which to draw. However, the lack of correlations among teacher and child reports of child coping suggests that the children may not actually use the strategies about which they are aware. Based on these results, children seem to know that "help seeking" is a viable response. Based on teacher reports, youngsters are not necessarily seeking help. Thus, intervention may need to be geared towards promoting the use of this behavior rather than simply presenting it as an option.

We were also interested in whether the children's and teachers' reports of use of the seven coping strategies varied by age or gender. Chi-square analyses of the child report data reveal that the children differentially choose coping strategies based on their perception of problem size. That is, the larger the perceived problem, the more likely they would use direct problem-solving strategies, such as "seeking help from an adult or peer." Problems perceived as larger are also associated with reports of more "crying or yelling" and "saying something mean and nasty to the target." Children reported differences in coping responses by gender, as well. Girls reported "finding out what's wrong and fix it" and "telling self everything will be okay" significantly more often than boys. ANOVAs computed on the teacher report data also revealed gender differences in choices of strategies. Teachers reported that girls were more likely to "seek help from adults," "find out what's wrong and fix the problem," and "cry or yell" when faced with an interpersonal conflict. Boys, on the other hand, were reported to be more likely to "say something mean or nasty" when faced with a conflict. Teachers did not report on the size of the conflict, so comparisons of teacher and child report data are not possible.

Finally, we were interested in whether the teacher's perceptions of coping with specific problems were related to global ratings of child social and coping competencies. Correlations among the seven coping strategies and composite ratings of sociability and coping competencies revealed that more direct problem-solving tactics ("finding out what is wrong and fixing it" and "seeking help from others") were significantly related to higher ratings of social and coping competencies. "Saying something mean or nasty" and "ignoring the target" were significantly and negatively correlated with lower competency.

CONCLUSIONS: These results provide suggestive evidence that children as young as 3 are sufficiently aware of the kinds of conflict events described that they can report on their efforts to cope with these problems. Of interest is the fact that these youngsters do not report employing different strategies for coping with peer conflicts as compared to teacher conflicts. This consistency in reporting of

responses across events is confirmed when compared to the teacher data. The teachers similarly report that the youngsters do not discriminate and use the strategies, regardless of who the conflict is with. The responses most likely to be endorsed included seeking help from peers or adults. Crying, yelling, and saying mean or nasty things were less likely to be reported, yet close to a majority of the children still indicated that they might resort to these tactics.

Differences in coping strategies endorsed did not vary between events involving teachers or peers. Differences did emerge, however, as a function of other factors. For example, perceptions of the problem as large versus small influenced the kind of responses endorsed. Problems perceived as large were more likely to result in reports of both direct problem-solving strategies and crying/yelling. Coping strategy use also varied by gender. Teachers were more likely than the children themselves to report that boys and girls use different tactics. Teachers described the girls as engaging in direct problem-solving strategies, whereas boys more likely resort to name calling.

When correlations among the youngsters' and teachers' reports were computed, no significant results emerged suggesting a discrepancy among the two sources in perceptions of coping responses. We do not believe this discrepancy undermines the value of the children's reports. The children are reporting on what they might do, which, when compared to teacher reports of what the teachers see them do, are different. If such comparisons were made on adult reports, comparisons between what they say they do versus their actual behavior, we suspect that there would not be a perfect correspondence. Further research, perhaps employing both self-report and observational methodologies, would help to clarify the meaning of these discrepancies.

Investigators interested in children's coping strategies have regularly argued that observational methods cannot assess cognitive-psychological processes or cognitive and emotion palliation strategies for coping with stress. Further, self-reports are suspect because they are subject to limited reliability. We acknowledge that the latter limitation applies to these data, and hope that some day we or others will develop methods that are appropriate for studying coping while solving these problems. Tackling these methodological problems and exploring coping for younger children seems critical if we are to help children cope more effectively.

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A Comparative Study of Social Problem-Solving Skills-Assessment Procedures *Daniel Pelletier, Frank Vitaro, Sylvain Coutu*

The gap between assessed social skills and actual social behavior in children has generated growing interest for the concept of situation specific skills, as opposed to a general social competence (Barkley & Edelbrock, 1987; Barnett & Zucker, 1980; Berndt, 1986; Mussen & Eisenberg-Berg, 1977; Turiel, 1983). One can no longer assume that children who are rejected by their peers will automatically display more aggressive and less prosocial behaviors in everyday situations. We must, rather, assess their mastery of social skills in relation to specific social situations that are crucial in terms of peer acceptance (Dodge, 1985; Dodge & Feldman, 1990; Rubin & Krasnor, 1986). Competition for resources and responses to peer provocations seem to be two of the most important social problems for children (Dodge, McClaskey, & Feldman, 1985; Shantz, 1987). Therefore, conflictual situations such as these involving two partners could very well be an excellent opportunity to assess specific skills such as assertiveness, cooperation, or avoidance of aggression, which may not surface in hypothetical or simulated situations or among large peer groups (Caplan, 1986; Ladd, 1983; Putallaz & Gottman, 1983).

The emotional impact of any social problem is clearly diminished when one has to imagine it, as opposed to when one has to cope with it; therefore, behavioral assessment of social problem-solving skills in realistic situations should prevail over social-cognitive measures, if only in terms of ecological value (Bichard, Alden, Walker, & McMahon, 1988; Rubin & Krasnor, 1986). Direct observation of natural social problem-solving abilities seems to have most of the qualities hypothetical situations lack: a more direct relationship between competence and performance, and the possibility of assessing the frequency, variety, persistence, and sequence of behaviors (Krasnor, 1985; 1983; 1982). However, these obvious advantages are overshadowed by important difficulties regarding the standardization of observational data (Asher & Hymel, 1981; Foster & Ritchey, 1979; La Greca & Stark, 1986). Assessment of social problem-solving skills must then take place in a relatively standardized setting, which should also generate a level of emotional arousal similar to the one of day-to-day social problems (Asher, 1983; Vitaro et al., 1988).

One method may fit such a description: observation of problem-solving behaviors in standardized settings. This procedure has the advantages of both previous approaches. Standardization, emotional arousal, and realism are achieved through an elaborate

script where subjects are confronted with what seems to be a real social problem. In these situations, the partners involved with the target child are either children who are trained to react in a standardized way or whose presence is simulated with the help of recordings.

The aim of this research was to compare the social problem-solving skills of two groups of children (aggressive-rejected and popular-prosocial) using four different assessment procedures: hypothetical situations, standardized conflictual situations, self-reported behaviors following the standardized conflictual situations, and anticipated responses if faced again with the same social problem. It is hypothesized that actual problem-solving behaviors observed in the conflictual situations will distinguish children from both groups more clearly than any other procedure.

METHOD: One hundred and fourteen subjects took part in this study. They came from a pool of 392 boys and 376 girls (N = 768) enrolled in 32 first grade (mean age : 83.7 months, SD = 4.23) and second grade (mean age : 97.2 months, SD = 5.8) classrooms. Almost all came from two small urban communities of average socioeconomic status and similar ethnic background (i.e., French-Canadian). Parental permission to participate was obtained for all children. Subjects were selected on the basis of teacher behavioral assessment and sociometric status. By applying the criteria proposed by Coie and Dodge (1983), five sociometric statuses could be distinguished: popular, rejected, controversial, neglected, and average. Subjects were then placed in one of two groups: aggressive-rejected subjects (n = 57) and popular-prosocial subjects (n = 57). Each group had a similar number of boys and girls from each grade level.

Four hypothetical problematic situations for children were used: being teased by peers; having one's work destroyed by another; being rejected by a group; having another take one's turn. These situations typify the type of peer provocations that are the most difficult for aggressive-rejected children to deal with (Lochman & Lamapron, 1986; Dodge et al., 1985). The four situations were illustrated on videotape and used for assessment using hypothetical situations. An experimenter presented each problem situation on videotape, and asked the subject how s/he would respond to the situation if s/he were in the victim's place. Responses were classified in 11 categories, by one of two trained raters, blind to the subject's group status. The response categories were reduced to five global categories using Principal Component Analysis. Overall, inter-coder reliability for 20% of the cases selected at random was 82.8%, using a criterion of exact agreement.

In order to prevent a simple transfer of solutions from one setting to the other, three slightly different problem situations were enacted by a trained peer-confederate for standardized conflictual situations. The peer confederate was matched for gender and grade but was different for each subject; s/he was from a different classroom. The peer-confederate received a brief training previous to his/her participation. The confederate's sociometric status and behavior profile were average.

In the first situation, the subject was playing a video game alone. The peer-confederate entered the room and interfered by "accidentally" pulling the electrical cord from the outlet (inspired by Shantz, 1987). After this first provocation, the peer-confederate pointed with his/her finger to a block construction the subject had built in order to win a prize, saying "That's nice". Then s/he touched the pyramid so that it collapsed (inspired by Dodge, et al., 1987). Finally, the peer-confederate filled his/her glass with all the juice available in an opaque bottle, leaving only a few drops for the subject (inspired by McClure, Chinsky, & Larsen, 1978). After about ten seconds following each event, an experimenter entered the room to set up the next provocation. During the provocations, the accomplice and the subject were left alone. The former was asked to "freeze" after each provocation. The experimenter stood outside the room in order to prevent any physical aggression; no such interventions were needed. The whole sequence was videotaped. According to two independent raters, 92% of the confederates displayed the appropriate behavior.

The subjects' verbal and non-verbal responses were classified into 13 verbal and six non-verbal behavior units by one of two trained raters blind to the subjects' group status. The behavior units were reduced to six verbal and three non-verbal categories according to Principal Component Analysis. Overall, inter-rater agreement for a randomly chosen 20% of the cases was 87.5%, using a criterion of exact agreement (number of agreements/number of agreements + number of disagreements x 100).

The subject and the peer-confederate were given trinkets and were allowed to play together for a few minutes after the experiment. The manipulation was fully explained to the subject by comparing it to popular TV shows such as Candid Camera. Teachers did not report any inappropriate behavior after the subjects returned to their classroom.

Subjects were interviewed after the provocations. They were asked 1) how they reacted to the confederate's actions, and 2) how they would react if faced with the same problem again. Responses were classified and reduced through principal components analyses.

RESULTS: A one-factor MANOVA showed no significant Gender effect ($p > .05$) over the five global categories of responses. This allowed merging boys' and girls' data for the following analysis: a 2 (Group) x 2 (Grade) MANOVA yielded no significant effect for the Group factor with respect to the number of responses in the five global categories.

A one-factor MANOVA showed no significant difference ($p > .05$) between boys' and girls' responses in the verbal and non-verbal categories. This also allowed merging the data for both genders for the following analysis.

A 2 (Group) x 2 (Grade) MANOVA was applied to the total number of responses in the verbal categories. The group factor had a multivariate significant effect on all verbal categories ($F_{(6,105)} = 2.50$, $p < .05$). Subsequent ANOVAs (Group x Grade) revealed

that aggressive-rejected subjects made more verbal attacks towards the peer-confederate and complained more often to the experimenter ($F_{(1,110)} = 9.22$, $p < .01$) than the prosocial-popular subjects.

A series of 2 (Group) x 2 (Grade) ANOVAs applied to the non-verbal composite categories revealed that aggressive-rejected subjects manipulated objects and tried to repair the confederate's damages more than prosocial-popular subjects ($F_{(1,110)} = 5.01$, $p = .02$). Finally, a two-factor ANOVA (Group x Grade) showed that the Group factor had a significant effect on the total number of non-verbal behaviors produced ($F_{(1,103)} = 5.09$, $p < .05$), the aggressive-rejected children being more physically active than the prosocial-popular ones.

MANOVA and ANOVA analyses revealed no significant differences between the two groups, neither on reported behaviors nor anticipated strategies, except for the verbal assertion category. Aggressive-rejected children would be less verbally assertive if faced again with the same social problems ($F_{(1,103)} = 7.17$, $p < .01$). Further analyses indicated that, at best, there was a very weak correspondence between observed and reported behaviors for each subject. Most children reported either a prosocial behavior (59.6% of the sample) or a neutral behavior (33.8%). The accuracy of the children's self-reported behaviors is not related to the group factor.

DISCUSSION: The hypothesis that standardized conflictual situations would generate more differential strategies than the other assessment procedures was supported by the data, despite the presence of key features in hypothetical situations, such as ambiguity of the aggressor's intentions and requests to identity with the victim. In the present study, aggressive-rejected children behaved somewhat more negatively in the standardized conflictual situations while responding the same way as prosocial-popular children in the hypothetical situations. In standardized conflictual situations, they verbally attacked the confederate and complained to the experimenter more often than the prosocial-popular subjects. They also were more physically active than the prosocial-popular children. Finally, they used less verbal assertive responses than the prosocial-popular subjects, although this difference did not attain statistical significance. However, this difference was significant with regard to verbal assertion as an anticipated solution, if the same problem was to occur again. Such results are congruent with data reported by other researchers regarding aggressive-rejected children's behaviors in naturalistic settings (Coie, Belding, & Underwood, 1988; La Greca & Stark, 1986; Mize & Ladd, 1988; Shantz, 1986). None of these differences was apparent with respect to the hypothetical situations. Non-clinically aggressive-rejected young children possess the knowledge necessary to behave "normally" with respect to their age norms when faced with hypothetical social dilemmas in a neutral setting, but they may lack the capability to enact these solutions when directly faced with real emotion-arousing problem situations. Tentative explanations for this gap could be that there are low expectations regarding the positive outcomes of assertive versus aggressive responses (Asarnow & Callan, 1985; Peters, Bernfeld, Bradley, & Walters, 1983), deficiencies in self-efficacy to perform the cognitively known solutions (Perry, Perry, & Rasmussen, 1986), attributional biases which legitimize use of aggression (Dodge & Frame, 1982; Dodge, Murphy, & Buchsbaum, 1984), prohibitive emotional arousal (Vitaro et al., 1989), or verbal deficits in aggressive-rejected children that limit their ability to use elaborate verbal strategies (Pelletier, Vitaro & Coutu, 1991).

The lack of differences between male and female subjects in standardized conflictual and hypothetical situations does not support Harris and Siebel's (1975) contention that boys and girls would respond according to their respective socialization histories (i.e., more aggressively for boys and more submissively for girls). Also, it does not support Dodge and Feldman's (1990) hypothesis that social-cognitive responses of aggressive-rejected and non-aggressive-non-rejected children to provocation situations differ more among boys than among girls.

These data lead to some tentative conclusions: standardized conflictual situations are a cost-effective way of identifying specific social problem-solving skills deficiencies that may be targeted for intervention. They represent one important step in developing psychometrically sound measures of social problem-solving skills in more ecologically valid contexts. They may also be used to assess intervention outcomes and to test generalization of social skills training (Frederiksen, Jenkins, Foy, & Eisler, 1976). Standardized conflictual situations may even serve intervention purposes by providing a realistic emotion-arousing context for social problem skills training. Generalization of skills learned in such contexts may be enhanced. Thus far very few authors have reported using realistic situations for training, as opposed to role play techniques. However, in role play, subjects are informed with regard to the artificiality of the situation. Besides, role play tests have not been very successful in predicting naturalistic behaviors unless they maximize the subject's involvement and utilize personally relevant stimuli (Becker & Heimberg, 1988; Hugues, Boodoo, Alcala, Maggio, Moore, & Villapando, 1989). Standardized conflictual situations have the potential to accomplish precisely what appears to be lacking with role play tests.

Finally, it is important to keep in mind that standardized conflictual situations could have important ethical implications. Experimental manipulation of behavior is quite common in social psychology where adults are involved, but is much less common with children. That no physical aggression was observed combined with the use of an extensive debriefing leads us to believe that this type of assessment is probably innocuous. Nonetheless, debriefing must be done properly by: 1) revealing to the subject the experimental manipulation; 2) giving the subject and the confederate an opportunity to relate on friendly terms following the assessment; and 3) by requesting that the teacher reports any incident after the child returns to his/her classroom. One may even consider the possibility of using the debriefing session for social skills training purposes, by pointing out salient aspects and behavioral alternatives to the subjects after reviewing the situations.

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Discussion *Nicholas Ialongo*

Given that my training was very developmentally oriented, I responded quite positively and energetically when I was reading the Raines/Isenberg paper. Because it was emphasized in my training, I have brought the developmental perspective, a life course perspective, to my work. I would like to make three points today about how a developmental perspective could guide efforts in the area of social cognitive functioning, in Head Start intervention, and in basic research in general.

First, in reading Scaramella's paper, from a life course developmental perspective, there are very salient events along the life course that are meaningful to study. They are transition to preschool, entrance into the peer group, negotiation of conflict resolution, and development of social relationships outside of the home. Studying everyday coping with interpersonal conflicts in the context of the preschool is very important. I would argue, from a developmental perspective, that it is not only theoretically but empirically essential. Data suggest that even as early as preschool, the way that children get along with other children predicts to adolescent and adult mental health and functioning and competence in social relationships. Clearly, from a developmental perspective, it is important to understand those normative events. Another step along the way may be to look at some of the other events that high-risk children, like those in Head Start, are going to experience and how they might cope with them. I wonder how relatively non-normative events, such as parental drug abuse or psychiatric disorder, might affect how children deal with the normative events. It is those normative events that get them into school, peer group, the kinds of things that all children are going to have to face. If a child has an experience with a non-normative event, like parental drug abuse or psychiatric disorder, he or she will not have much of an opportunity to influence the parent's behavior, and I wonder if that, in turn, might undermine their self-efficacy, their approach to normative events, once they get into the school. How are they going to feel about their problem-solving ability? John Weiss and Eve Brautman have talked about control and contingency-related beliefs. To what extent do experiences with those particular kinds of events, non-normative events, affect children's concepts of control and contingency-related beliefs as they relate to normative events, and their transition into those?

I also want to make the point about interventions and their developmental perspective. We have to be careful in considering what we are going to come up with regarding the developmental capacities of children. I am not so sure, from two points of view, that pushing kids towards a secondary coping or more abstract reasoning -- trying to make them feel good by thinking about something else -- or some other kind of non-concrete strategy is something that we would want to emphasize with preschoolers. This is simply because, developmentally, children may not really be at that level. One of the things that Isenberg and Raines brought up is expecting children to resolve conflicts through mutual agreement. I don't buy this for all children because it is not until 8 years of age that they really start de-centering and can understand the idea of mutual agreement and reciprocity. I also worry that we might move to recommending intervention that reflects what the overall capacity of children might be. Some children may differ. I know that in our

research we are finding depression to be very meaningful in first graders, in 5- and 6-year-olds. They also talk about guilt. They talk about contingency and control-related beliefs. Some would have argued that you really can't get children to talk about those things, that they don't really experience those things. We are also finding children, as young as 5 or 6, experiencing hopelessness and helplessness. This is another thing that some have argued should not become apparent until maybe around age 7 or 8 or the middle elementary school years. I also think that it is important to look at maladaptive behavior, abnormal behavior, atypical behavior, from a normal developmental perspective. Instead of looking at maladaptive behavior in a vacuum, let's try to understand how children normally negotiate through the peer group, or negotiate cognitive transitions and milestones. We should then attempt to understand how children who are not having that kind of success went wrong.

In considering verbal mediational strategies, Clair Cop did a wonderful job of synthesizing the literature on self-initiated regulation in children, taking from Vygodsky and Luria, and applying it to impulse control in children. I have done work with attention deficit disorder children, and one of the things that we have looked at is the degree to which these children deviate from a normal developmental perspective. Cop draws these lines. Somewhere around the age of 2 or 3, children start to control their behavior through overt language. It is probably by the age of 6, that they are using covert language. One of the things that we have been looking at is whether the children who lack self control, in fact never got from the point of overt to covert language. Once they reach the elementary school years, they are lagging behind their same-age peers in terms of the ability to control their behavior through internalized language. I wonder if, somewhere along the way, aggressive, rejected children also often have attention concentration problems as well; if there is this developmental path that would be important to look at. Here, we could try to identify the social, contextual contributors to that variation in children readily internalizing language, and use that to control their behavior. I see the family playing a role in this developmental path.

One of the things that Pelletier did was to elaborate on was a number of potential explanations for some of the deficits or maladapted behaviors that the aggressive, rejected children were exhibiting. One of the things that John Gottman has been doing is looking at the degree to which marital disruption causes an over-aroused physiological state in the parents' preschooler, and how that over-aroused physiological state might come to disrupt problem-solving in peer conflict situations. Emotional arousal was mentioned, but I am not quite sure if it was mentioned in that same context. Potentially, family may play a very significant role in social cognitive functioning, as seen in this example. Another way, in thinking about Gottman's research, is that the parents who were engaged in heavy marital conflict were less likely to monitor and supervise their children's behavior. Perhaps these children are less competent to deal with normative transitions when they come into the classroom. That is not saying that it is not valid. I understand that in the developmental literature there is a perspective of focusing on peers as a separate world. However, you can't get away from the world that the children have been in for most of their life, before they get into the preschool or elementary school situation. It also ties in with attributions. In the attachment literature, researchers have been trying to understand the relationship between early attachment and children's peer relations. This is because peer relations are a stepping stone to other social relations, with people other than the family. Others are working on what comes out of that attachment relationship, in terms of children's schemas of self, caregiver, and others. Perhaps, some of the attributions that aggressive, rejected kids are taking with them, or have, are being taken from the home. Those attributions may reflect their schema that may, in turn, be a function of their enduring attachment relationships.

Jerry Patterson, Tom DeShan, John Reid, and Lou Banks have looked at these behaviors. Basically, they have elaborated a theory about aggressive children and what happens to them in terms of peer relations. They talk about early interactions around compliance, around the toddler stage, that set the stage for later development of peer rejection. One of the points that they make is that the way parents respond to non-compliance and compliance issues in children can certainly alter the way the children then respond to non-compliance or compliance in social problem-solving situations. They have elaborated a theory of coercion and argue that some parents use coercion to get their children to comply. In turn, children, when they enter either elementary school or preschool, tend to coerce other children. From a developmental perspective, children learn through the peer group. However, if you have a coercive child entering the peer group, who turns off his peers, who turns off the teacher, he or she is less likely to learn from normative interactions with peers. This is another way that the family might play a role. Then, of course, there is Park and McDonald's work, about the role fathers play in children's peer relations through rough and tumble play. I found on an in-patient rotation at the University of Washington that this was a fairly decent intervention, if there was some control, for very relaxing and calming down, along with providing an outlet for aggressive and depressed kids.

AUDIENCE DISCUSSION

The importance of taking the social context into account was highlighted. For example, focusing on resilience as an individual characteristic in children omits the larger context within which children function. Some have argued that this individualistic approach leads to an expectation that children should be doing all the changing.

A methodological issue was also raised which concerns the number of solutions children in these studies were asked to produce in response to each problem situation. Each child provided three responses and there were no differences found between them. The lack of difference between inhibited and aggressive children in the content of their responses was noted. Teachers may not consider inhibited children a problem because they are not disruptive, but the fact that they score the same as the aggressive children indicated they may be at-risk too. What may distinguish them is how aggressive children get out of conflicts. Their strategies appear

to escalate conflict rather than resolve it. The need for a developmental theory of how children learn how to get out of conflicts was highlighted.

A variety of important moderating variables were suggested including gender, ethnicity, IQ, and number of parents in household. In some similar studies, gender effects were found. For example, father role affected peer acceptance in the peer group, especially for sons. In other studies, the effects of parents was clearer for daughters. In terms of the number of parents in the home, it was suggested that one go beyond asking if it's a single-parent family to determine what adults have a relationship with the child or a role in the child's life, whether or not they live in the home.

Panel 120 PREDICTING CHILD ABUSE AND NEGLECT

Chair/Discussant: **David MacPhee**

Demographic and Behavioral Characteristics of Abused Handicapped Children *Patricia M. Sullivan, Patrick E. Brookhouser, John M. Scanlan, John F. Knutson, Laura E. Schulte*

A great deal of media attention has been afforded the topic of abuse among preschool-age children (Hechler, 1988; Hollingsworth, 1986). The McMartin case in California and the Country Walk case in Florida, in particular, generated concerns regarding the safety of very young children in day care settings. However, an extensive national study of preschool maltreatment cases found that children were at greater risk of being abused in their own homes than in day care centers (Finkelhor, Williams, & Burns, 1988). Professionals, including child protection workers, believe handicapped children to be at high risk for abuse, and that some disabling conditions are caused, or exacerbated, by maltreatment (Friedrich & Boriskin, 1976; Schilling, Kirkham, & Schinke, 1989). However, there is a surprising paucity of methodologically sound research in both the handicapped and non-handicapped abuse fields (Knutson, 1988). Nearly half of the states in the U.S. do not collect any information on special characteristics, including handicaps, of abused and neglected children, and the remaining half exhibit variability in style and competence of collection techniques (Camblin, 1982). Although a majority of CPS workers believe handicapped children are at increased risk for maltreatment, most have never served handicapped clients (Schilling et al., 1989).

There is some suggestion in the literature that preschool handicapped children may be at increased risk for maltreatment in day care centers. Cohen and Warren (1987) found a higher incidence of physical abuse and neglect among handicapped children in preschool programs than in respite care programs. Handicapping conditions included cerebral palsy, mental retardation, spina bifida, autism, and speech impairments. Very little sexual abuse was documented in this study. Among nonhandicapped preschool-age children, a variety of abuse characteristics have been identified (Mian, Wehrspann, Klajner-Diamond, LeBaron, & Winder, 1986). These include a 3:1 ratio of females to males, high incidences of intrafamilial abuse, duration of abuse longer than one year, and behavioral symptomatology. Multiple assaults by known perpetrators occurring in either the child's or perpetrator's homes have also been identified among preschool-age children (DeJong, Hervada, & Emmett, 1983). Behavioral and emotional indicators have been identified among preschool-age maltreated children. These include sexualized behavior, anxiety, fear, and withdrawal (Einbender & Friedrich, 1989; Kolko, Moser, & Weldy, 1988). Follow-up evaluations of preschool children in psychiatric hospitals indicated negative outcomes associated with abusive parents (Dalton, Bolding, & Forman, 1990). Handicapping conditions, including deficits in intellectual functioning and school achievement, and physical deficits, have been identified among abused preschool-age children (Einbender & Friedrich, 1989; Gomes-Schwartz, Horowitz, & Sauzier, 1985).

In a comprehensive study of almost 500 children with documented and verified maltreatment episodes, as well as handicapping conditions, several distinct patterns of maltreatment emerged (Sullivan, Brookhouser, Scanlan, Knutson, & Schulte, 1991). In descending order of frequency, the categories of abuse endured by the handicapped children were: sexual, sexual/physical, physical, emotional, and neglect. This finding contrasts sharply with data reported for non-handicapped children, in which the most frequent type of maltreatment is physical abuse, followed by emotional and sexual abuse. Sexual abuse was the most common form of abuse suffered by girls. Mainstreamed boys were more likely to be physically abused (35%) than sexually abused (30%), but males in residential institutions were much more likely to be sexually abused (58.8%) or sexually and physically maltreated (28.9%) than to suffer isolated physical abuse (10.5%). Placement in a residential school was identified as a major risk factor for maltreatment.

The purpose of the current study was to investigate the patterns of maltreatment among a group of preschool-age children with verified handicaps in order to determine if differences exist between what has been identified for non-handicapped age-mates. In addition, the behavioral symptomatology of the children was investigated.

METHOD: Of 527 consecutively referred abused handicapped children evaluated at Boys Town National Research Hospital (BTNRH) between 1984 and March of 1991,129 (67 males and 62 females) were under 6 years of age (M=3 yrs., 9 mos.). The states of residence of the 129 children included Nebraska (103), Iowa (20), Texas (2), South Dakota (1), Missouri (1), New York (1), and Kansas (1). Racially, 77.1% of the children were Caucasian, 17.7% were Black, and 5.2% were Native American, Hispanic, or Asian. The children attended school in mainstream (67.2%), residential (11.5%), and day programs (21.3%).

Medical records of the 527 abused handicapped children were reviewed by research personnel at BTNRH to determine type of handicapping condition; type, severity, and duration of abuse; and perpetrator, behavioral, and other demographic characteristics. To establish the reliability of the data collection procedure, 55 records were randomly selected and reviewed by a research assistant who was not involved in the initial review of the records. Intercoder agreement was computed using Cohen's kappa coefficients for a subset of the variables included in the present study: handicapping condition, type, severity, and locus of abuse, and perpetrator identification. The kappa coefficients for the 10 variables included in the reliability analysis ranged from .70 to 1.00, with an average of .90, indicating strong agreement between coders. Descriptive statistics, including frequency counts, percentages, and means and standard deviations, and chi-square tests of independence (alpha=.05) were computed on the data.

RESULTS: The 129 children in the present study were diagnosed with a variety of handicapping conditions: hearing impairment (16), speech-language impairment (51), learning disabilities (4), behavioral disorders (17), mental retardation (26), and other handicaps (15), including cleft palate, cerebral palsy, health impairment, and autism. Twenty-six percent of the children were multihandicapped.

The 129 study children were victims of the following types of abuse: sexual (53), physical (33), a combination of sexual and physical (27), neglect (12), and emotional (4). The type of abuse the children endured was significantly related to their gender, $X^2((4)=11.17$, $p=.0247)$, but not to their handicapping condition $X^2(20)=20.71$, $p=.4144)$. The number of boys who suffered sexual and/or physical abuse was approximately equal. The girls, however, were more likely to be victims of sexual abuse. In addition, sexual abuse, or a combination of sexual and physical abuse, was the most prevalent type of abuse for each of the handicapping condition subgroups. For the most part, the abuse occurred either at the children's homes (72.4%), the perpetrators' homes (12.1%), or the children's school (6.0%).

The severity of sexual abuse, physical abuse, and neglect was coded according to 4-point scales. For sexual abuse, the scale was as follows: 1) witnessing sexual abuse; 2) fondling (being forced); 3) oral and digital penetration; and 4) anal and vaginal intercourse. Sexually abused children suffered moderate to severe levels of abuse (7.7%=1; 27.7%=2; 36.9%=3; 27.7%=4). The severity of physical abuse was coded according to the following scale: 1) potentially injurious to child; 2) tissue damaging event -- harmful restraint or control; 3) serious injury requiring medical or dental services; and 4) fatality or life-threatening physical event. The majority of physically abused children had been harmfully restrained or had serious injuries that required medical services (14.9%=1; 44.7%=2; 31.9%=3; 8.5%=4). The severity of neglect was coded according to the following scale: 1) failure to educate or follow medical recommendations; 2) non-life-threatening lack of supervision and follow- through; 3) lack of adequate food, housing, and medical care; and 4) life-threatening (i.e., abandonment). The majority of neglected children suffered severe levels of neglect (0.0%=1; 3.1%=2; 53.1%=3; 43.8%=4).

The duration of abuse was coded along the following continuum: 1) one episode; 2) less than one year; 3) one to three years; and 4) more than three years. Most of the children were abused on more than one occasion. In fact, by the age of 6, over 30% of the sexually abused children, 50% of the physically abused children, 90% of the emotionally abused children, and 70% of the neglected children had been victimized for more than one year.

Over 99% of the perpetrators were known and trusted persons in the children's environment. The majority of the perpetrators who sexually, physically, or emotionally abused the children were males: 87.4%, 63.6%, 71.4%, respectively. The majority of neglect (58.9%) was committed by female perpetrators. The main perpetrators were the children's mothers and fathers. Other perpetrators included mothers' boyfriends, relatives (such as grandfathers and uncles), and older children.

The Child Behavior Checklist (CBCL), a widely used, reliable, and valid instrument for measuring children's behavior, was utilized to record the behavioral problems and competencies of 56 of the abused handicapped children (Achenbach & Edelbrock, 1983). The CBCL was completed by the person (i.e., mother, foster mother) who accompanied the child to BTNRH for evaluation. The scores on the CBCL composite scales and subscales are reported as normalized T-scores, with higher scores indicating more behavior problems. Collapsed across age and gender groups, the abused children's composite behavior scores (total, internal, and external) were greater than one standard deviation above the mean of the normative sample (M=50, s.d.= 10). The CBCL was normed separately for children ages 2 to 3 and boys and girls ages 4 to 5, resulting in scales with the same label being formed from different items for the three groups. The composite scale and subscale scores for the children ages 2 to 3 (n=10), the boys ages 4 to 5 (n=26), and the girls ages 4 to 5 (n=20), were calculated. Each of the composite scale and subscale scores for all three groups exceeded the composite scale and subscale scores of the normative sample.

DISCUSSION: Results of the current study indicate that the majority of this group of preschool-age children had handicapping conditions that affected their ability to communicate, and thereby to report, the abuse they endured to appropriate authorities. These communicative handicaps included speech and language impairment, hearing impairment, mental retardation, cleft lip and/or palate, cerebral palsy, and autism. One-fourth of the sample had multihandicapping conditions. This provides empirical support to the notion that handicapped children are at risk to be maltreated, given the impediments they have in telling others about their victimization.

In order of frequency of occurrence, the most prevalent type of abuse with the children was sexual, followed by physical, a combination of sexual and physical abuse, neglect, and emotional abuse. This is in contrast to non-handicapped children, who tend

to endure more physical abuse than other types of abuse, and a much lower rate of sexual abuse. There were some sex differences in type of abuse endured. Girls were more likely to be sexually abused, while boys were equally likely to be either physically or sexually abused. The most prevalent type of abuse for all handicapping conditions was sexual, or a combination of sexual and physical, abuse. Handicapped children are at higher risk of sexual abuse than non-handicapped children. Preschool-age handicapped children are safer in school than in their own homes. Only 6% of the children were abused at school. The other 94 % were abused in their own homes or in the homes of perpetrators. The overwhelming majority of children (72.4 %) endured intrafamilial abuse. Almost all of the perpetrators were well known to the children. Stranger abuse occurred in less than 1% of cases. The majority of abuse perpetrators were males, whereas females were the major perpetrators of neglect. Females were identified as perpetrators of sexual and physical abuse, but not in high percentages. The main perpetrators were the children's parents. Others were grandfathers, uncles, mothers' boyfriends, teachers, teacher aides, cab drivers, custodians, and physical care aides.

The majority of children experienced severe levels of maltreatment. Sexually abused children endured oral and digital penetration, as well as anal and vaginal intercourse. The majority of physically abused children experienced tissue damaging events, harmful restraint, or serious injuries requiring medical attention. A great deal of neglect is required before it comes to the attention of authorities. Accordingly, the majority of neglected children suffered lack of adequate food, clothing, shelter, and medical care and/or abandonment. A large majority of children endured multiple episodes of maltreatment, occurring for one year or longer.

All children exhibited significantly more behavior problems than found in non-abused, non-handicapped children. The mean scores for the children were one standard deviation and higher than the norms on the Child Behavior Checklist. The 2- to 3-year-old children exhibited social withdrawal, depression, sleep problems, somatic complaints, aggression, and destructive behavior. The 4- and 5-year-old boys earned elevated scores on the social withdrawal, depression, immaturity, somatic complaints, sex problems, schizoid-anxious, and aggression scales. The girls in this age group earned elevated scores on the somatic complaints, depression, schizoid-anxious, social withdrawal, aggression, sex problems, and hyperactivity scales. Maltreated handicapped preschool-age children exhibit emotional and behavioral symptomatology. This is in contrast to previous research that included handicapped subjects in which relatively few signs of serious disturbance were found among preschool-age sexually abused children (Gomes-Schwartz et al., 1985). Both boys and girls exhibited sexualized behavior, including acting like the opposite sex, both public and excessive masturbation, sex preoccupation in play, wishes to be the opposite sex, and idiosyncratic sexualized behavior described by their caregivers.

These results have implications for professionals in preschool programs for the handicapped, as well as prevention programs for these children. Both need to be acutely aware of the patterns of maltreatment and behavioral manifestations found among preschool-age handicapped children. Both boys and girls are at risk to be maltreated by male and female family members or mothers' boyfriends. Sexual abuse, either in isolation or in combination with physical abuse, is the most prevalent form of maltreatment these children endure. Handicapped preschool-age children tend to endure multiple assaults by known perpetrators for longer than one year. Maltreated children exhibit behavioral symptoms that should alert professionals and caregivers to the possible presence of abuse. These include aggression, somatic complaints, and sexualized behavior. Prevention programs in particular need to target intrafamilial abuse.

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Abusive Violence Toward Children: A Review of Risk Factors *Richard J. Gelles, Glen Wolfner*

This paper represents a profile of abusive violence toward children in the United States, based on results from the Second National Family Violence survey. It also will serve to update the profile based on the data from the First National Family Violence Survey carried out in 1975 (Gelles, 1980). These findings, while robust for 1985, may well be shifting in unpredictable ways.

THE FIRST NATIONAL SURVEY OF FAMILY VIOLENCE: In 1975, we embarked on an examination of the incidence rates of violence toward children and the demographic and social characteristics of violent families. Straus, Gelles, and Steinmetz (1980) revealed that violence toward children is not rare. In fact, the annual incidence of severe (or abusive) violence was between 1.4 and 1.9 million, or 34/1,000 children, nearly double the highest estimate of abuse suggested by the National Center on Child Abuse and Neglect.

Profile of risk factors in 1975: The results of this survey, presented in Behind Closed Doors: Violence in the American Family (Straus, Gelles & Steinmetz, 1980), revealed that 1.4 million children between the ages of 3 and 17 were victims of at least one act of abusive violence during the referent period (one year). The profile of those with the highest risk was: region -- Midwest; size of locality -- large city; number of children -- five; gender of caretaker -- female; age of caretakers -- under 30 years old; race -- Native American, Asian, or other; income -- below the poverty line; education -- H.S. graduates; employment of husband -- unemployed, employed part time or blue collar; gender of child -- male; age of child -- 3-5 and 15-17.

THE SECOND NATIONAL FAMILY VIOLENCE SURVEY: Ten years after their first look at family violence, Gelles and Straus replicated their inquiry into the state of family violence in America. In 1985, the Second National Family Violence Survey was conducted, using a nationally representative sample of 6,002 households. Two principle sampling changes were that this study included single parents and infants and toddlers. The Conflict Tactics Scales (CTS) were revised and interviews were conducted by telephone.

Sample and Administration: The sample was drawn using a Random Digit Dial procedure and was composed of four parts. Initially, 4,032 households were selected in proportion to the distribution of households in the 50 states. Then, 958 households were oversampled in 25 states, to assure that there would be at least 36 states with at least 100 completed interviews per state. Finally, two additional oversamples were drawn, containing 502 Black and 510 Hispanic households. Data presented in this presentation have been weighted to account for the three oversamples.

To be eligible for inclusion in the sample, the respondent had to be an adult, 18 years of age or older, who met one of the three following conditions: 1) currently coupled, 2) previously coupled, or 3) a single parent with a child under 18 years of age living in the same household. If more than one eligible respondent was in the household, a random procedure was used to select the gender of the respondent. The overall sample was made up of 3,522 female and 2,480 male respondents. The survey included 3,232 households with at least one child under 18 years of age at home. If more than one child under 18 years of age resided in the home, a random procedure was used to select the "referent child." The response rate of the telephone interviews was 84%.

DEFINING AND OPERATIONALIZING FAMILY VIOLENCE: Violence was nominally defined as an act "carried out with the intention, or perceived intention, of causing physical pain or injury to another person." The intent and motivation of the act could range from slight pain to homicide. We defined abusive violence as those acts of violence that have a high probability of causing injury to the person (an injury does not have to occur). That is, it is the intent that differentiates violence from other acts, and the high risk of injury that defines it as abusive.

Violence was operationalized through the use of the Conflict Tactics Scales (Straus, 1979, 1990). First developed at the University of New Hampshire in 1971, this technique has been modified and used extensively in numerous studies of family violence (e.g., Allen & Straus, 1980; Cate, Henton, Christopher, & Lloyd, 1982; Giles-Sims, 1983; Henton, Cate, Koval, Lloyd, & Christopher, 1983; Hornung, McCullough, & Sugimoto, 1981; Jorgensen, 1977; Steinmetz, 1977; Straus, 1974). There is evidence of adequate internal consistency reliability, concurrent validity, and construct validity.

This presentation reports data from the Minor and Severe indexes as they are part of the continuum of physical methods of conflict resolution. In addition, they are orthogonal indexes, in that there is no overlap in their item pools. A long-held traditional assumption is that violence is on a continuum from the mildest form (e.g., a slap) to the most severe and deadly forms (e.g., shot with a gun). This theoretical view, largely unexamined, has been the foundation of nearly all research and policy on family violence. Recently, Gelles (1991) challenged this view, suggesting that there may be two distinct categories of violence: physical punishment and abusive violence. We will employ that convention for the duration of this presentation.

Abusive Violence versus Child Abuse: We use the terms "minor violence" and "punishment" interchangeably. Similarly, we use the terms "severe violence" and "abusive violence" to refer to those acts that have a high probability of causing injury. We have largely refrained from using the term "child abuse" in this and other papers that report the results from the two National Family Violence Surveys, because it is a term with legal, political, and clinical implications. In addition, we are interested in discussing abusive acts by caretakers toward children, whether or not injury resulted, irrespective of whether the family is known to the Child Protective Service

(CPS), and regardless of the specific physical and emotional pathology of the family and its individual members. For the purpose of this paper we will present the data and provide the reader the latitude to determine what is abusive and what is not.

Violence Rates: We converted the raw data into rates of violence per 1,000 children for each of the indexes. One reason for this was to address the methodological problems created by non-normal distributions of violence found to be due, in part, to the low base rate of the severe items of violence. Additionally, it is more reliable to examine whether any acts of violence occurred than how many acts occurred, as this is less subject to problems of memory recall, social desirability, and similar problems in collecting survey data.

Insofar as we are conducting primarily a descriptive study on a nationally representative sample, departure from base rates on demographic variables is not expected in all cases. Considering that abusive violence is a behavior of low base rate in the general population, where differences do occur between groups, it is questionable whether these differences would be significant. In instances where the groups differ but statistical significance is not obtained, and these differences are noteworthy, we refer to this as substantive significance. Where statistical significance is obtained, we report the probability of this finding based on chi-square, unless otherwise noted.

RESULTS: We present the base rates of minor and severe violence as necessary anchors for examining minor and abusive violence patterns. Three of five children experienced one or more incidents of minor violence in the survey year. The base rate of severe violence is about one out of ten children, during 1985.

Minor and severe violence are not isolated or singular events. The mean number of minor violence incidents children experienced during the year studied was 9.47/child (range=1-54). When we examine abusive violence (i.e., the severe violence index), the mean number of incidents children experienced was 5.63/child (range=1-50), or a little less than once every two months.

Region and Size of Community: There are no notable variations in the rates of minor violence, but differences in the rates of severe violence approached statistical significance ($p=.058$), with the East having the highest rate of abusive violence -- some 35% higher than any of the other three regions. When we look at the size of the place the family resides, there are no statistical or substantive significant variations in the rates of either type of violence.

Family Structure Variables: For both minor and severe violence, the rate decreases as length of residence increases and is significant for minor violence at $p<.001$. Families who moved recently have about a 20% higher rate than those who had lived there for a least 14 years. The difference for abusive violence between newly settled families and long-term residents jumps to almost 40%, but fails to reach statistical significance. The relationship between minor violence and number of children in the household was curvilinear, with a peak at four children; that is, 29% higher than families with only one child at home ($p<.001$). Severe violence shows a similar pattern, with families with five children at home reporting two-and-a-half times as much abusive violence as those with only one child ($p<.01$). Caretaker Variables: Women report a 10% higher rate of both minor and severe violence than men, although statistical significance was found only for the minor violence index. Age of respondent likewise reveals an inverse relationship for both punishment and abusive violence. For minor violence, almost twice as many children were physically punished by younger caretakers as by older ones ($p<.001$). This ratio is 40% for severe violence, a difference we believe is substantively significant. Black respondents report the highest rates for both minor and severe violence. Hispanic respondents had the lowest rate of minor violence and were higher than average for severe violence. In contrast, white respondents reported rates about the same as Blacks for minor violence and were the lowest of all the groups for severe violence. There were no statistically significant differences among religious denominations for either minor or severe violence, although some important patterns exist. Jewish families had the highest rate of punishment, but the lowest rate of abusive violence. In contrast, those respondents who claimed no religious affiliation had the lowest rate for punishment and the highest rate of abusive violence.

Income, Education and Employment: Minor violence was slightly higher for the poorest families, but showed neither statistical nor substantive differences. The severe violence pattern was quite clear, and statistically significant, with poor respondents reporting one and a half times more abusive violence than more affluent families ($p<.01$). For both mothers and fathers, the least educated caretakers reported the lowest rates of punishment ($p<.01$). Mothers showed no noteworthy differences when we look at abusive violence. Fathers who completed less than a high school education reported the highest rates of severe violence, while those with either only grade school or college educations were the least abusive to their children ($p<.01$).

Finally, mothers at home with children reported the highest rates of physical punishment, although these findings are only substantively significant. Fathers who were employed part time reported the highest rate of physical punishment of any of the categories for either parent's employment status ($p<.05$). Unemployed mothers and fathers also had the highest rates of abusive violence that were at least substantively significant. Children whose mothers and fathers held blue collar jobs experienced about 5% more minor violence than those whose parent(s) held white collar jobs (statistically significant for mothers only, $p<.05$). When looking at severe violence, this difference jumps to 10% more for mothers ($p>.05$), and 50% more for fathers, who held blue collar as compared to white collar jobs ($p<.001$).

Alcohol and Drugs: With respect to alcohol use, there were no significant differences for both punishment and abusive violence. Drug users reported 20% more minor violence ($p<.001$) and 46% more severe violence than abstainers ($p<.05$).

Gender and Age of Child: Males 0-17 years old were victims of physical punishment about 10% more than their female peers ($p<.001$). Male children were victims of abusive violence almost 35% more than female children ($p<.01$). Teens were the least likely to

be victims of minor violence, experiencing less than half as much physical punishment as preschoolers ($p<.001$). The preschoolers were victims of abusive violence at least one-and-a-half times as much as were infants/toddlers and teens ($p<.001$).

DISCUSSION: The profile of abusive violence towards children in 1986 is: region -- East; length of residence -- less than one year; number of children -- five; gender of caretaker -- female; age of caretaker -- 18-27; race -- white or Black; income -- below the poverty line; education -- some high school; employment status -- unemployed; type of employment of father -- blue collar; drug use -- yes; gender of child -- male; age of child -- 3-6. There were no significant differences found for the size of community, religious affiliation, or alcohol use when examining the incidence rates of abusive violence.

Patterns of Change: Some important changes have surfaced between the profiles generated from the data of the two National Family Violence Surveys. In 1975, the Midwest was the region with the highest rate of abusive violence; in 1985, it was the East. And while city dwellers were the most abusive a decade earlier, the 1985 survey revealed no differences between the inner city and rural areas. A second change pertains to race and religion. Again, focusing on abusive violence, the 1975 profile indicated that those in the residual "other" category of respondents were the most abusive for both race and religion. In 1985, Blacks and whites were highest and there were no differences based on religious affiliation. The third change between the two profiles was in some of the characteristics of the victims. Preschoolers replaced teens as the most likely victims of abusive violence. Boys remained the more likely victims of both minor and severe violence in 1985.

While a number of factors have changed between the two profiles, many other factors have remained the same. More than 1 in 10 children were victims of severe violence at the hands of caretakers during both survey years. Larger families are still more abusive. The youngest parents are consistently the most abusive of the caretakers. Unemployment and underemployment still drive the rates higher. Finally, poorer children remain at the highest risk.

Theoretical Explanations: Our data are consistent with a social stress model of family violence, where social and economic stressors are positively correlated with abusive violence. The youngest, poorest, and most socially isolated and economically frustrated caretakers are the most likely to act abusively towards their children. But, while it is quite clear that certain stressors escalate children's risk, abusive violence crosses all social, racial, religious, educational, and financial boundaries, albeit not evenly. Therefore, we conclude that a diathesis-stress model is a more parsimonious explanation of abusive violence toward children. The tendencies for acting abusively are present in most individuals. Social or psycho-social stresses only exacerbate tendencies and beliefs that are already there. This model accounts for why abusive violence transcends economic, racial, gender, and age boundaries and why it is more common in some parts of the population than in others.

Policy and Practice Implications: The broadest implications for policy and practice arising from our findings are that we as a society still have much to address in order to abate family violence towards children.

In light of the facts, a two-tiered policy solution is likely to best serve children in particular, and society in general. On a macro level, a strong starting line would be for the emergence of federal and state legislation banning what is now socially sanctioned "physical punishment" and passive acceptance for many abusive acts. Only a small fraction, possibly as small as 33%, of all abusive acts are known to official agencies (Burgorf, 1980). This suggests that attitudinal change is needed to supplement existing policies. While abusive violence would likely continue behind closed doors (Gelles & Edfeldt, 1986), at least society would no longer passively condone acts. Nothing short of a major and comprehensive shift in social policy is needed to abate family violence. Meanwhile, information and public education campaigns should continue to move forward, as they are partly responsible for some of the decline in abusive violence seen in the decade studied here.

Similarly, on a local level, additional attention is required for those families and children who are the most at risk. When the starting salaries for child protective service caseworkers and day care professionals is half of that found in many major cities for semi-skilled laborers, such as refuse collectors, we neither attract nor retain quality professionals. And, during times of economic crisis, an increase in, not a slash at, protective service agencies, early intervention, parent training programs, and primary prevention is needed all the more, especially for the socially isolated and economically disadvantaged.

We know which parents are most likely to require intervention long before abusive violence comes to the attention of official agencies. We know which children are most likely to be the victims. It is curious, then, that we are only beginning to focus on primary and secondary prevention. The model found nationwide is one of tertiary prevention aimed at reducing repeated violence, or band-aid solutions, such as only servicing families where violence is currently present or has recently occurred. The answer most often provided for continuing to utilize these policies is limited funds. We assert that the actual cost in dollars to society for the myriad of medical, psychological, educational, and criminal justice correlates of family violence far outdistances even the most optimistic estimates of the amount devoted to studying and reducing family violence.

Finally, policy should be theory driven and empirically validated if we hope to reduce violence towards children. If five cents was added to every direct service dollar and aimed towards research, we could better learn what interventions and policies work well and how to optimally implement them. When successful corporations devote billions of dollars to research and development, and ongoing quality control evaluations of their products, the benefits (i.e., profits) speak clearly of their utility. But when it comes to social policy, these proven methods are discounted *a priori*, and again the outcome resembles the effort -- only this time the cost is in human suffering and loss of life of children. In 1987, the American Humane Association, one of the only agencies to consistently track

annual incidence of official CPS reports by state and break down the figures into the types of abuse, was forced to stop its studies altogether, due to lack of funding. With trends such as these, only our awareness of the problem will vanish, while the problem continues to escalate.

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The Relationship of Socioeconomic Status to the Causes and Consequences of Physical Child Abuse

Penelope K. Trickett, J. Lawrence Aber, Vicki Carlson, Dante Cicchetti

This research addresses some long-lasting controversies concerning the relationship between child abuse and socioeconomic status (SES). One part of this controversy has been whether differences in socioeconomic status (SES) affect the etiology and prevalence of abuse and, if so, how (see, e.g., Parke & Collmer, 1975). There is currently a moderate consensus about whether the prevalence of abuse is higher in lower SES families. Recent studies have indicated that although there may be a reporting bias such that lower SES abusive families are proportionately more likely to be reported to the authorities than middle-class abusive families, it is likely that abuse, in fact, occurs more frequently among lower SES families (National Center for Child Abuse and Neglect, 1988; Straus & Gelles, 1986). No research has focused on the processes that could account for this relationship between SES and abuse rates. One possibility is provided by the large literature on the relationship between SES and certain child-rearing practices and attitudes, which has demonstrated a relationship between lower SES and greater use of authoritarian punishment, lower parental involvement and nurturance, and lower emphasis on independence (Gecas, 1979). So far, no empirical investigations have focused on child rearing practices and SES in samples of abusive families. That was one purpose of this research.

Similarly, the question of how SES might mediate the consequences of abuse for children's development has long been a matter of speculation. Elmer (1977) found no differences in social and emotional developmental sequelae between abused children and a matched lower SES control group, and concluded that the impact of poverty on children's development is so deleterious that any additional impact of abuse is not discernible. This conclusion runs counter to additive theories of risk (Rutter, 1979), and, in fact, some recent research studies (e.g., Aber & Allen, 1987) have shown that in some domains of development, maltreatment has demonstrable deleterious effects even in welfare-dependent samples. However, the issue of how low-SES may mediate these effects has not been examined. This was a second purpose of this research.

These issues of the relation of SES to the processes involved in the etiology of abuse and the developmental consequences of abuse were addressed by the collaboration of two research projects -- the Harvard Child Maltreatment Project (HCMP; Cicchetti, Carlson, Braunwald, & Aber, 1987) and the NIMH Child Abuse Project (Trickett, Susman, & Lourie, 1980). Fortuitously, the general perspective and design of these two projects were quite similar, and, in fact, several of the measures were identical, which made possible an unusual opportunity to assess the generalizability of patterns of findings across samples from two geographical locations that differed in ethnic and social class composition.

The subjects in the collaboration were subsamples drawn from the two larger projects. The HCMP is a large-scale study with a total sample of over 400 maltreated and comparison children between the ages of 1 and 8. The sample included the full range of types of maltreatment, is lower SES, and predominantly welfare-dependent. The NIMH study is a smaller project with a 4- to 11-year-old, predominantly working class, physical abuse sample and a matched comparison group. Because of the differences in the age ranges of the subjects (i.e., 1-8 versus 4-11 years of age) and in the type of maltreatment experienced by the children (full-range of maltreatment versus physical abuse), similarly defined subsamples of physically abused 4- to 8-year-old children were selected from each project for this collaboration.

The collaboration sample that resulted included an HCMP abuse group (N=37), an NIMH abuse group (N=21), an HCMP comparison group (N=53), and an NIMH comparison group(N=21). The HCMP and NIMH groups did not differ in age ($\bar{X}$ = 5.9 years),

percentage of boys (64%), or average number of children in the family (2.6). The groups did differ significantly in race and percentage of single-parent families (with the HCMP group having more whites and more single-parent families). The samples also differed in SES as measured by the Hollingshead Four Factor Scale (Hollingshead, 1975). While there was considerable overlap between the groups, the average Hollingshead score for the HCMP groups (23.22) was about one standard deviation below that of the NIMH groups (33.16)

Four measures common to both original studies were selected for analysis. Of these, two measured childrearing context (the Family Environment Scale and the Child Rearing Practices Q-Sort) and two measured child developmental status (the Peabody Picture Vocabulary Test and the Child Behavior Checklist). Analyses included univariate and multivariate analyses of variance and hierarchical multiple regressions that revealed two major findings: First, both for measures of childrearing context and child development, there were robust abuse effects and very similar patterns for both project samples. These effects remained (and in some cases were strengthened) when SES was controlled for. In brief, the abusive parents reported the expected heightened conflict, control, and punitive discipline techniques, but also considerable differences in the emotional climates of the homes. For the abusive families a picture emerges of worried parents with little enjoyment of parenting and little satisfaction with, and expressed affection for, the child; of isolation from the wider community; and of lack of encouragement for the development of autonomy and independence in the child, while nonetheless holding high standards of achievement for the child. As compared with the comparison children, the abused children had lower cognitive maturity and more severe behavior problems, especially in the areas of social withdrawal, depression, and aggression. The second major finding is that, in some cases, interaction effects emerged that indicated that the relationship between SES and the outcome variables differed for the abuse groups as compared with the comparison groups. For example, for the comparison parents, the higher the SES, the lower the espousal of belief in authoritarian control techniques -- a relationship found in many studies of the relationship between SES and parenting practices. For the abusive parents, on the other hand, this relationship did not exist. The significant SES-abuse-status interaction for the variable indexing enjoyment of child and parental role can be interpreted similarly. As the stresses associated with poverty decrease, expressed enjoyment of parenting increases for the comparison group. This expected relationship does not hold for the abuse group.

Much research has shown that the types of childrearing environments that describe the abusive families here have deleterious consequences for children across many domains. Subsequent analyses have been conducted, both collaboratively and for each project sample separately, to examine the ways in which the aspects of childrearing context described above affect child development in abusive and nonabusive families, and to understand more about the processes by which SES mediates these relationships. It has been found, for example, in the NIMH working class sample that the same domains of childrearing context as described here predict deleterious child development outcomes and that after these childrearing variables are controlled for, knowledge of abuse or comparison group status is no longer a significant predictor of child development (Trickett, 1991). That is to say, adverse childrearing practices that are correlated with abuse predict behavior problems in children and other adverse outcomes, and knowledge of whether abuse exists in a family does not improve the prediction that can be made by knowledge of these childrearing practices alone. Thus, it is clear that interventions with abusive parents should be oriented not only to stopping the abuse, but to changing other aspects of the parents' childrearing beliefs and practices as well.

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BEST COPY AVAILABLE

Predicting Child Abuse and Neglect by Adolescent Mothers *Susan J. Zuravin, Katya Masnyk, Frederick DiBlasio*

Some of the characteristics that discriminate between teenage mothers who neglect their children and comparable teenage mothers who have not neglected their children: There is fairly consistent evidence that teenage mothers parent their children less sensitively than do mothers who are older. In addition, there is considerable concern that teenage mothers are at high risk for child abuse and neglect. Despite this, we know almost nothing about the relationship between teenage motherhood and child maltreatment. There are very few studies that have looked at this, and the ones that have, have asked a simple question: Are teenage mothers more likely to maltreat their children than older mothers? While findings generally conflict, some suggest that these mothers are more likely to physically abuse and neglect their children. However, when education and poverty are controlled, the difference between teenage mothers and older counterparts disappears, or is significantly reduced. This suggests that the relationship between teenage motherhood and maltreatment might be due to poverty or poor educational achievement.

As helpful as it is to look at comparisons between teenage mothers and their older counterparts, it would be more fruitful in terms of theory and prevention strategies to look at the relationship between the characteristics that discriminate between teenage mothers who neglect and teenage mothers who do not. In other words, what is the difference between those who maltreat their children and their counterparts who do not? I could not find a single study that has compared teenage mothers who are maltreating their children with a group of comparable age teenagers who are not maltreating their children.

This is a beginning study, so my objectives are not very far-ranging. First, I was interested in identifying the characteristics that discriminate between teenage neglectors and their non-maltreating counterparts. I focus on neglectors because neglect may be more prevalent among teenage mothers. Second, I wanted to determine how well these characteristics predict neglect. Third, I wanted to test some simple hypotheses about processing.

METHOD: The subjects are a subset of 102 mothers drawn from 518 mothers who were surveyed during 1984 and 1985. These 518 mothers were recipients of AFDC. This is a very attenuating sample. In Baltimore, the site of our study, the reported maltreaters are approximately 55% AFDC recipients. This is the highest-risk population in Baltimore coming into our child protective service. All of the mothers are single-parents. Twenty-two neglectful mothers in this current study represent every mother in the group of 118 neglecters who gave birth to a first child before age 18 (these are true adolescent mothers), and were identified as neglecting prior to age 20 (we might call them immediate rather than delayed maltreaters). A delayed maltreater is a mother who gave birth before age 18 and did not maltreat until after she was 20. Eight comparison mothers represent every mother from the 281 comparisons who gave birth to a first child before age 18. Teenage motherhood is defined as less than age 18 because it is the younger mothers, those under 18 years of age, who care less sensitively than the older-than-teenage mothers. In this retrospective study, the average age of the neglectful mother was 23 at the time of the interview and the comparison mother was 26. This is important because some of my characteristics have to be measured after the fact. Therefore, there is a time measurement problem. By the age of 26, none of the mothers in this comparison were cited for maltreatment. We cannot say, therefore, that there may be a lot of latent maltreaters in this comparison group. Interestingly, the maltreaters were about two and a half times more likely to be Caucasian than the comparison. The comparison group was predominantly Black, and neglectors were more likely to be white. This may be a special reflection of demographics in Baltimore. The white population tends to be very depressed, coming from West Virginia and Appalachia, functions much less well, and has many more mental health problems than the low-income Black population. This may be more indicative of Baltimore than of what might be happening nationally.

Measures were selected in the absence of a real theory about why teenage mothers maltreat. I drew on Belsky's theory of the determinants of parenting, which emphasized that growing up experiences are fundamental to the attitude of the subsequent parent. He postulated the importance of how long the mother was attached to her own mother and whether she was maltreated. He also puts at the core of his model the adequacy of the mother's psychological resources, e.g., how well she copes with the world, how well she gets along with other people, the level of her self-esteem.

I was interested in looking at age of first birth because even among an attenuated sample like this, where everybody is under 18, there is still a likelihood of differences among these mothers, depending on when they had the first birth. I was interested in education, not so much because I think a poor education achievement is related to maltreatment, but because poor education achievement may be an indicator of poor intellectual functioning. Our clinical impression, from looking at some of these teenage mothers, is that they look pretty limited. Education may be a marker for some limited learning abilities. Babies' condition at first birth is another important variable hypothesized by others to be related to maltreatment. This stands for whether the baby was premature or of a low birth weight. The number of children has been associated with child neglect from the very beginning of research on child neglect.

I used a logistic regression model. There were five characteristics that discriminated between the mothers. If a mother had been sexually abused when she was young, before age 18, she was 4.5 times more likely to fall into our neglect group than a mother who was not sexually abused. Forty-five percent of these young mothers reported being sexually abused. This is comparable to a new study being conducted in Seattle, which also shows very high rates of sexual abuse, particularly among groups of teenage mothers.

None of the psychological resource variables were significant. These measures have good internal consistency and validity, and they did not discriminate. In fact, the medians and the means for both groups of mothers were all depressed on these measures. It may be that the whole group of teenage mothers is depressed with respect to self-esteem, coping problems, and locus of control. These are not discriminators between this group. Age of first birth has a very powerful effect on neglect. For each year that the mother awaits her first birth, she decreases her risk of neglect by one-third. Education also has a powerful effect on neglect. For each additional year of education that the mother completes, she decreases her risk of neglect by one-third. If she graduates from high school, her risk of neglect is decreased by 90%. The education variable has a powerful effect. I don't think it has anything to do with completing education. It is more likely to be a marker of limited learning ability. Finally, the mother who has a premature infant, or a low birth weight infant, is three times as likely to neglect her child as a mother who doesn't. Most powerful of all the variables is how many children the mother has by the time she turns 18. Mothers who have two or more children by the time they are 18 are 8.7 times more likely to neglect than mothers who have only one child.

All of these variables were put into a regression model to see how well they predict. I used a backward step-wise reversion. Of the eleven variables, only two remained in the mode: number of children and education. These were the most powerful variables. The model is significant, but not particularly impressive with respect to its predictive ability. More than one child and level of education are equally powerful in terms of their predictive ability. Odds ratios are unchanged in the bi-varied analysis, which means they are not inter-correlated or they are not varying and correlating. They are truly separate, independent predictors, meaning that they truly stand for something different. However, the problem with prediction models is that they don't tell us anything about the processes through which any of these characteristics lead to neglect. It is likely that age at first birth falls out of the model, because it leads to more children and to lower birth weight children, and those are the factors that probably influence whether a mother is going to maltreat her children or not.

Discussion: Issues in Predicting Child Abuse and Neglect *David MacPhee*

It is important that studies of risk factors, whatever the outcome variable, rule out potential confounding variables. For example, it is thought that teenage mothers, by virtue of their young age, are predisposed to maltreat their children, although the risk factor "less than 18 years" is confounded with educational attainment and income. I would like to highlight, in the papers presented here, some features of the studies' designs that have minimized difficulties associated with confounding variables, thus ruling out alternative explanations for why some family types are more likely to maltreat their children. First, all of these studies used well-defined criteria or operational definitions of abusive acts for selecting their samples. As I have found in a content analysis of the research literature and states' statutes (MacPhee & Rattenborg, 1991), such precision is relatively uncommon. Precise definitions allow the selection of homogeneous samples and permit others to replicate the research. As an aside, I was struck by Gelles's comments related to how our society views family violence. He observed that "were the victim of this act [hitting a child with an object] a stranger, there would be little question that it would potentially constitute an act of at least criminal battery, and possibly be felonious." Perhaps when legislatures begin defining child abuse in terms of what parents would tolerate in non-family caregivers' treatment of their children, we will make headway in specifying maltreatment. However, one should note the lack of consensus on how maltreatment is defined. In three samples (Cicchetti, Gelles, Zuravin), a standardized instrument was used to assess parental acts; in two samples (Sullivan, Trickett), data were collected on the types and severity of harms to the child. Again, my content analysis indicates that such diverse definitions are the rule rather than the exception. Inconsistent definitions across samples can create mischief. Trickett and her colleagues (1991) found differences between the Harvard and NIMH samples with respect to family environment and childrearing practices, which they attributed to different selection criteria. They speculated that "children from higher-class, two-parent families may need to pass a higher threshold of severity of abuse to be referred" (p. 156). Their comment that a common metric of maltreatment is needed to compare results across samples is well taken.

Many critics of research on child abuse have noted that the strength of conclusions is diminished by reliance on clinical case studies without adequate comparison groups (Levanthal, 1981; Mahoney, 1978; Newberger et al., 1983; Rosenberg, 1987). In all of the studies presented here, except Gelles's, which was an epidemiological survey, such comparison groups were included. Without comparison groups, we would not know whether non-abused handicapped children would exhibit a similar profile on the Child Behavior Checklist (Sullivan & Schulte) or why it is that some teenage mothers do not neglect their children (Zuravin).

Finally, these researchers are to be commended for using standardized, psychometrically sound instruments to assess either family functioning or developmental sequelae. As compared to earlier clinical/descriptive studies, or even some more recent work, the scales used here generally were sound and appropriate for the samples they studied.

Next, I would like to address a more theoretical issue: how risk was conceptualized in these studies and what the relative payoff might be of treating risk as a status versus psychological variable. It is not uncommon for researchers to treat risk as a descriptive category or status variable, especially when the phenomenon is poorly understood. For example, earlier research trying to predict which children would fare poorly in school or have lower IQ scores used parental education or SES as risk factors. However, such an approach ignores immense within-category differences. We now know that low-SES families exhibit tremendous variability in aspects of the home environment (e.g., toys and books, social stimulation, noise and confusion), childrearing practices (discipline,

language, affective quality), material and emotional supports, and levels of stress. These latter variables appear to mediate the effects of poverty on school performance, and thus may be more appropriate foci of intervention efforts.

With regard to abuse, few studies have documented linkages between status variables, such as those investigated by Gelles (most of which surrogate measures of family stress), and the psychological mediators that explain why a given variable places a family at risk. What we need are more process-oriented studies of the type presented by Trickett, who examined variations in the family environment and childrearing practices as they relate to abuse and SES. Zuravin also examined both status and psychological variables, and, interestingly enough, found that the psychological mediators failed to distinguish between the neglectful and comparison teenagers, although several of the status variables did. Some aspects of these papers tantalize but don't fully address the process issue. For example, Sullivan and Schulte found that abused handicapped children had elevated CBCL scores, as did Trickett and her colleagues. Why would this be a risk factor? Does abuse cause behavior problems in children, or could the CBCL scores reflect greater difficulty in caring for the child, which results in abuse? Or are these scores simply a measure of the developmental status of the child? To address such questions, one would need to follow the groups over time to see if changes in child behavior resulted in modified parental behavior, and vice versa.

In addition to asking, "What are the psychological mediators of these status variables?" It would be helpful to investigate the predictive power of combined risk factors. That is, do additive models of risk (Sameroff & Seifer, 1983) apply to abuse? In most studies of abuse, lists of risk factors are considered singly, but might not family ecologies be more complex than this? Might there be interactive or synergistic relations among variables? Could some risk factors, such as mobility, family size, income, education, and employment, be interrelated (cf. Gelles)? We do have some evidence, from Trickett et al. (1991), for additive models of risk: the consistency of the patterns that emerge from group difference analyses, along with the regression results, provides strong support for the notion that there are differences in the developmental ecologies of abusive homes, beside those attributable to low-SES. I am suggesting that more complex multivariate strategies, such as discriminant function analysis, be adopted in order to account for risk factors in combination.

Given that risk factors probably operate in concert, it should be obvious that a measure of association between a single risk factor and abuse status does not promote informed decision-making about who should gain access to parenting programs. Aside from the risk of labeling parents on the basis of limited information, knowing that a variable significantly discriminates abusive from comparison parents as a group does not tell one the likelihood that a given parent has been accurately identified as abusive. To be of greater use to decision-makers, researchers must conduct more cross-classification analyses. Such analyses allow one to determine the accuracy with which a composite risk score can accurately identify abusive and non-abusive parents (for procedural particulars, see Stangler, Huber, & Routh, 1980; Tsujimoto & Berger, 1988). Thus, does knowing parental employment status, education, income, age, and adverse socialization experiences allow a decision-maker to predict abuse with 60% accuracy? 75% accuracy?

Even if one could identify parents at levels greater than chance, there are risks associated with mislabeling families -- access to appropriate programs, and cost/benefit issues (see Kaye, 1985). For example, my reading of the literature indicates that there is a fair degree of overlap in the distributions of abusive and nonabusive parents, in terms of family structure and psychological characteristics. When combined with a fairly low base rate of abuse, it means that decision-making guidelines will not be clear-cut or very accurate, and that scarce funds will be expended on families who may not need the assistance as much.

One alternative is to invest in large-scale education and prevention programs, that focus on attitudinal change, as Gelles has suggested. In fact, higher spending on abuse programs is associated with lower reporting rates of abuse (MacPhee & Rattenborg, 1991). Another approach is to adopt a two-tiered system of screening, in which status variables would first be used to identify high-risk families (cf. Finkelstein & Ramey, 1980). These high-risk families could be further screened with regard to psychological processes and ecological variables (e.g., support systems) that more reliably differentiate abusive from nonabusive parents. Such approaches to screening and prevention more effectively use scarce resources, and may have a more powerful influence on the well-being of our nation's families.

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AUDIENCE DISCUSSION

Audience discussion focused on the relationship between abuse and social class. The possibility was raised that some of the findings were due to the comparison children having a greater range of social classes than the abused children. In response, panelists reported that within each of the two samples (NIMH and Harvard), the mean and range of social class was the same for the abused and the comparison children, even though there were, in fact, differences between the two NIMH and Boston samples on social class. The finding of the relationship between social class, abuse, and authoritarian beliefs about punishment was of particular interest. In the abused group, there was no relationship between such beliefs and social class; whereas, in the comparison group there was an inverse relationship such that as social class went up such beliefs went down. Why abusive parents appear impervious to social class insofar as authoritarian beliefs about punishment go has not yet been explained.

Panel 121 SUPPORTS TO HOMELESS FAMILIES AND CHILDREN

Chair: **Louis Lipsitt**; *Discussant:* **Vonnie McLoyd**

Services Available to Homeless Young Children: A Rural Perspective *Thelma Harms, Debby Cryer*

The survey I will report on today is the first conducted in North Carolina to document services provided for children and families in shelters for the homeless and for victims of family violence. Most of our information about services for the homeless comes from urban studies conducted mainly in big cities. In contrast, North Carolina is a rural state with 91 of its 100 counties meeting the Census Bureau's definition of rural. It is also a state where per capita income in rural areas is only 76% of the per capita income in urban areas (1987 statistics). The incidence of families living below the poverty level is significantly higher in rural areas and highest among female-headed households. A majority of North Carolina counties reported that 26% or more of their female-headed households lived on incomes below the poverty level (1980). The Head Start program served 11,034 low-income children, mainly in half-day programs for 3- and 4-year-olds, in 93 North Carolina counties during fiscal year 1989-90. This is less than 20% of the eligible low-income children.

In April 1990 a questionnaire was sent to shelters in North Carolina to acquire information on services provided to families and their children. The survey was completed as part of the Respite Child Care for Children in Crisis Project at the Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill. The project is a cooperative effort with Family and Children's Services of Greensboro. The information contained in this summary has been selected from the full report on 78 North Carolina shelters serving families with children.

Approximately 468 children, most of them under the age of 10, are found in North Carolina shelters daily. They remain in the shelters for an average of 28 days. For the most part, shelters are poorly prepared to meet the needs of these children and their families. The typical shelter is designed to meet the survival needs of adults only. The transient population of unfamiliar people and the lack of privacy and security make the shelter a dangerous, unwholesome place for any child to live, even for a very short time. Of 118 shelters returning questionnaires, 78 served families with children. Forty of these shelters were for victims of domestic violence; 38 provided services to the homeless, which also includes victims of domestic violence. The shelters were located in 46 of North Carolina's 100 counties, and were scattered across the state. An average of six children are served in each such North Carolina shelter daily. Despite the publicity that school-age children in shelters have received, preschool children between the ages of 3 and 5 are the most frequently served group. Infants/toddlers and younger school-age children appear in shelters more often than older school-age children.

Family violence and loss of housing due to a variety of circumstances were the most common reasons for shelter use (74% and 82%, respectively). Although a common stereotype of the homeless is that they are victims of drug abuse, in only 6.5% of shelters was drug addiction listed as a most common reason for shelter usage. Although shelter residents are often characterized as being unemployed, 60% of the shelters indicated that about half or more of the families they served had one working parent. Housing, job placement, and child care were identified as the three most pressing needs of families in shelters (93%, 59% and 49%, respectively). Surprisingly, health care and drug/alcohol treatment were least often listed as pressing needs of families (5% and 7%, respectively).

Sharing of living spaces makes basic childrearing tasks such as toilet training, preparation of baby foods, or bedtime routines almost impossible. Almost all shelters require that family units share common space and equipment, which tends to decrease the privacy and independence so valued in our society. In addition, sharing of space/equipment substantially increases health risks, especially for infants and toddlers. Separate sleeping rooms for each family were available in 65% of shelters. However, if shelter occupancy was high, families often had to share sleeping rooms. Only 14% of shelters provided toilets that did not have to be shared with other shelter residents. Only 7% of shelters provided private food preparation facilities.

Although child care was listed as one of the most pressing needs of families in shelter, child care was listed as a service that was available on-site in only 30% of shelters. Thirty-six percent of shelters indicated that child care was available off-site, and 34% reported that no child care was available. Parents in shelters must spend long hours looking for permanent housing or jobs,

attempting to access support services, or working to subsist. In the absence of child care, children must accompany their parents, or remain unsupervised, and therefore miss out on the important play opportunities and adult interaction they need for normal development. Both children and parents would benefit from accessible quality child care available either on or off the shelter site.

Forty percent of shelters reported that no play spaces were available to children. Sixty percent of shelters reported that some indoor play space was provided. These spaces varied. The majority provided play rooms. Several indicated that the children could play in a toy corner of a living room or between beds in bedrooms. Only 59% of shelters provide some outdoor play space for children to use. Forty-one percent of shelters have no outdoor play space for children. Research has shown that children in shelters do not receive adequate play opportunities and adult supervision to promote the development of normal language, social, emotional, and motor skills.

In almost all shelters the primary supervisors of children in play spaces were the parents. Twenty-six percent of shelters reported that parenting skills was one of the three most pressing needs seen in shelter residents. This raises the question of whether the parents have the specialized knowledge necessary to enhance their children's learning through proper supervision of play. The enriched adult interaction that is necessary to help children in shelters avoid developmental delays may often be lacking in North Carolina. Parents in crisis must exert so much of their energy in solving their own immediate problems that they may have little reserve for their children.

Although some shelters reported their strengths as meeting children's physical needs for food, shelter, and clothing, most saw their strengths as support of the children's emotional or personal well-being. The problem most frequently mentioned by shelters serving families was the lack of affordable child care. The next most frequently reported problem was the difficulty of educating parents so thy could meet their children's needs.

The majority of shelters responding to the survey met operating expenses by piecing together funds from several sources. This means that shelter staff are forced to spend large amounts of time seeking funding. This time could be better spent in meeting the needs of shelter residents. The most frequently tapped source of funding was from the North Carolina State Government, with 52% of shelters receiving funds. The least frequently tapped funding source was corporations, with only 5% of shelters receiving corporation funding.

Based on this survey, five recommendations are made to help prevent the intellectual and emotional damage suffered by preschool children in shelters. In reviewing the information presented in this report one recommendation stands above all others: provide low-cost transitional or permanent housing to all families in need. Housing was the most frequently listed pressing need of families. The lack of privacy, the undermining of independence and responsibility, the health risks that come from sharing communal facilities with an ever-changing population, and the exposure to many dangers associated with shelter life would all be reduced with the provision of housing for individual families. Of course, many needs would still remain for these families, including job placement, child care, counseling, and educational services. Services to meet these needs could be delivered to a family with the stable base that a home provides.

Homeless children should be considered "primary clients" along with their parents. This is the only way homeless children will have any chance of future success. Shelter staff should receive training on topics such as child development, positive handling of children's behavior, child health, safety and nutrition, meeting the special needs of children in crisis, appropriate learning environments for children, and accessing services for children in the community.

Families should be provided with the basic facilities to meet the health and safety needs of children while they are being housed in shelters. Separate sleeping, food preparation, and sanitary facilities should be available for each family group to limit the spread of disease and to encourage stability of individual family routines. Individual family units should be private and secure to avoid the dangers associated with a transient, ever-changing population. Parents with children should be encouraged to use the shelter as a home and should not be turned out "on the street" during the day.

Appropriate play spaces with proper supervision should be provided in shelters to enhance children's opportunities for learning through play. Space for play should be provided both indoors and outdoors. Play materials and equipment should meet the developmental needs of the children. Play opportunities should be available to children throughout the day. A trained staff member should actively supervise volunteers or parents who assist with the children. Alternatives for child care should be explored to free parents in shelters for part of the day to deal with necessary tasks while at the same time meeting children's needs for safe and normal development.

The Head Start program has a great deal to offer families and children in shelters and transitional housing. The experience of combining health care, parent education and a strong program for children is just what is needed. Since the 1960s, the Head Start mandate has been to serve poor children. In the 1990s, we have a large population of poor children who have the increased risk of homelessness. Innovative outreach by Head Start to these families and the shelter staff is a new challenge. Could shelters be assigned a certain number of slots for their residents? Could the Head Start parent education program include shelter parents? Could the nutrition and health programs offered in the local Head Start be expanded to include the shelter residents and staff? Head Start has faced and conquered many challenges. Serving homeless children and families is yet another one.

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The Relationship of Child Abuse and Parental Alcohol and Drug Abuse to Adult Social Functioning: Research Findings and Program Implications

Helen G. Edwards, Sylvia Ridlen, Yvonne Asamoah

The consequences of being the child of an abusive parent or an alcoholic or drug addicted parent are important to understand. In terms of practice, the clinician who understands the relationship of negative childhood experiences to adult functioning can take a pro-active stance in the treatment process. In terms of policy, knowledge of the risk factors allows policy-makers and planners to design intervention programs that target those most at risk for chemical dependency or other maladaptive behaviors. The present study relies on data collected with a female sample, most of whom are mothers of young children. In recent years research has shown that gender differences are important in the development of many diseases and other conditions. Analyzing data by gender seems to be indicated wherever possible.

Researchers have begun to explore the adult consequences of child abuse victimization. Childhood abuse, whether it be physical or sexual, is linked to a number of adult pathologies. The association of abuse to adult psychiatric disorders in women was the subject of one recent study by Shearer, Peters, Quaytman, and Ogden (1990). Studying 40 adult female borderline inpatients, these researchers found that eating disorders, drug abuse disorders and suspected complex partial seizure disorder were over-represented among the 40% who reported a history of sexual abuse. Early family disruption, more frequent psychiatric hospital admissions, and a concomitant antisocial personality disorder were over-represented among those who had reported physical abuse as a child (Shearer, Peters, Quaytman, & Ogden, 1990). This study was done retrospectively and relied almost exclusively on dichotomous variables. Child abuse as a risk factor for alcohol or drug abuse has also been examined in the literature. A recent study using a sample of alcoholic women and a control group of household women selected by random digit dialing found a significant relationship between the experience of childhood violence and the development of alcoholism in women (Miller, Downs, & Gondoli, 1989). Several studies summarized by Wilsnack (1984) indicate that incest and other sexual abuse, including rape, are experiences that may predispose women for alcohol abuse.

The literature exploring the consequences of being an adult child of an alcoholic reveal a similar pattern. A frequent finding in the literature is that maternal alcoholism contributes more to the development of alcoholism in children than paternal alcoholism (Gomberg & Lisansky, 1984), although alcoholism in either parent increases the risk of alcohol problems for the child (Cotton, 1979). Cotton's review (1979) of the literature provided striking evidence to support the theory of familial transmission. A number of the studies reviewed showed that female alcoholics are more likely to have a family history of alcoholism than male alcoholics. In addition to transmission of the disease, parental alcoholism has been related to other emotional and behavioral problems for children. In a recent review of the literature, Giglio and Kaufman (1990) found evidence to support a relationship between psychopathology in children of alcoholics and their adult psychopathology. A study (Black, Bucky, & Wilder-Padilla, 1986) done with adult children of alcoholics (ACOAs) and a control group of adults raised in non-alcoholic homes showed a number of statistically significant differences between the two groups. While almost 37% of the ACOAs described themselves as alcoholic, only 9.5% of the comparison group described themselves that way. Child sexual abuse was significantly more prevalent among the ACOAs than the control group (18.5% vs. 9.6%). ACOAs reported significantly more depression (45.2% vs. 23.1%), more problems trusting people (60.3% vs. 34.9), more problems with intimacy (62.1% vs. 40.5%), and more problematic areas overall than their non-ACOA counterparts.

In the present study, parental alcohol and drug abuse and a history of child abuse are measured in a sample of homeless, mostly minority women with children. Homeless poor women are at increased risk for a number of negative conditions including violence, drug abuse, and alcoholism. Their children are similarly at risk. Documenting the histories of these women and examining how that history may be related to their present situation is a first step towards understanding the complex etiology of chemical dependency and other psychiatric symptoms among poor homeless women with children.

METHOD: As part of a federally funded research demonstration project, homeless female shelter and welfare hotel residents were interviewed using a structured interview based on McLellan's Addiction Severity Index (ASI) (1980). The original ASI was modified and expanded to better fit the female homeless population under study. Questions related to family, such as number of children, were added, as well as questions on the subject's history of victimization. The interviews were conducted by outreach workers trained in assessment and addiction. For the purposes of this study, we selected items from the psychiatric, drug and alcohol use, and legal sections which seemed likely to be associated with a history of child abuse or parental alcohol or drug abuse based on a reading of the literature. Specifically, the relationships between the subjects' history of child abuse and their experience of psychiatric symptoms (during their lifetime and in the past 30 days), use of alcohol and drugs in the past 30 days and need for alcohol/drug treatment as assessed by interviewer are tested. The independent variable of parental alcohol or drug abuse is examined in a similar fashion. Finally, the relationship between being a victim of child abuse and subsequently being a victim of domestic violence or rape is explored.

RESULTS: A general profile of the 193 women interviewed between January 1, 1989 and March 31, 1991 shows that the women are mostly from a minority background (97%). They are primarily single mothers in their 20s or 30s. The majority have not completed high school and have been either unemployed or working at home for the past three years of their life. One striking pattern that emerges is that lifetime experience of all but two of the symptoms is significantly related ($p < .05$) to the experience of child abuse. Among symptoms in the past 30 days only anxiety is significantly related to child abuse. Maternal alcoholism is significantly related to both alcohol and drug severity, but does not show a significant association to use in the past 30 days. Paternal alcoholism and drug use are not significantly related to any of the alcohol or drug use variables. Although caution is warranted when looking at self-reported, retrospective data, these findings are reported with some degree of confidence. Because of the sensitive nature of much of this data, underreporting is a possibility, but interviewers report a good deal of honesty and openness around all the topics, except use of alcohol and drugs. The possible underreporting in that case is somewhat mitigated by the use of the alcohol and drug severity rating in the data analysis.

The findings reported on psychiatric symptoms and child abuse are of interest in that lifetime report of psychiatric symptoms is significantly related to a history of child abuse in all but two of the symptoms, while only anxiety in the past 30 days is significantly related to such a history. One possible explanation for the lack of a significant association in the past 30 days is that many of the women in this sample have recently become homeless. Those who report depression, problems concentrating, or problems sleeping may be troubled by this crisis situation rather than their past history.

The lack of a significant relationship between violent behavior and child abuse history in either time period is also of interest in that it does not support the theory that violence begets violence. Child abuse is significantly correlated to domestic violence, although rape and the alcohol and drug use variables do not show a significant relationship. The significant relationship between child abuse and domestic violence suggests that women who are abused as children may be at risk for further victimization as adults. Further research into this relationship is needed. The findings with regard to maternal and paternal alcoholism and drug abuse are consistent with other authors' findings in this area. Maternal substance abuse is significantly related to the alcohol and drug severity rating while paternal substance abuse is not. Use of alcohol and drugs in the past month is not significantly related to parental substance abuse. Underreporting may be an explanation for this. Only 19% of women report any cocaine use in the past month, but 55% are recommended for drug treatment.

The findings of this study should be interpreted with caution for a number of reasons. First, the retrospective nature of the study limits the findings. All of the studies cited in the literature review share this limitation, making the body of knowledge of this subject incomplete. A second limitation of the findings is that the data is mainly by self-report. This is most problematic with regard to the self-report of substance use in the past 30 days. The women under study are, for the most part, mothers of young children. Their lives are scrutinized in many ways, by many agencies. Discovery of an alcohol or drug abuse problem could jeopardize the custody of their children. For that reason they may be reluctant to disclose the actual level of their use of alcohol or drugs. In fact, interviewers rating the accuracy of the data collected judged that 30% of the respondents were misrepresenting their actual substance use in the past 30 days. Their judgment is based on daily observations of the subjects in their living environment.

Experiencing abuse as a child and having a mother who is an alcoholic or drug abuser is significantly related to a number of adult mental health problems in this sample. Further research is needed to understand the complex relationships of these variables, but these findings and others reported earlier indicate that childhood intervention with those at risk might help prevent future adult functioning problems. The problem of how to identify families at risk needs attention. Actual reports of child abuse to child welfare agencies or positive toxicology reports are clear indications of a problem, but it would be preferable to identify families prior to an actual incident. Preschool programs could benefit from family assessment instruments that help identify substance abuse problems and the risk for child abuse. Appropriate assessment interviews are one aspect of the identification process that needs development. The issue of where identification should take place is another. School would seem to be the natural setting for identification, since that is where children are located in one group. A problem arises when trying to identify families with preschool age children, however, since not all such children enroll in preschool. Increasing enrollment in preschool programs like Head Start would offer increased opportunities to identify and target at-risk families.

Finally, the development of programs that treat the whole family would seem to be indicated, given the findings. These programs would provide secondary and tertiary care to the adult parents suffering from substance abuse and mental health problems and primary preventive care to the children. Collaboration between the disciplines of mental health, chemical dependency, and education would be essential to this effort. The best way to help a child is often to help that child's parent.

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Homeless Children and Academic Opportunity: A Call for Early Intervention

Allison A. Rosenberg, Andrea Solarz, Brian Wilcox

Homelessness is not new, or unique, to the United States. There have always been individuals without homes in our country, with the numbers swelling in times of economic stress and declining in years of prosperity (Rossi, 1990). Consistent with this pattern, a dramatic surge in the number of homeless persons occurred during the Great Depression of the 1930's. In startling departure from this predictable association between national economic prosperity and individual homelessness stands the coincidence of the "Economic Boom" of the 1980's and the second great expansion of the homeless population in America. While many individuals - especially the elderly - are economically better off now than they were in the 1960's and 1970's, the last decade has seen a growing disparity in income levels among families and a substantial decrease in the mean income of the poorest quarter of the population. From 1973 to 1984, for example, the mean income of the poorest one-fifth of families dropped by 34%, and the mean income of the next poorest one-fifth dropped by 20% (McChesney, 1990). In the words of one observer, "The past decade has seen a quiet redistribution of wealth in the United States on a scale usually associated with...social upheaval" (Blasi, 1990).

One result of these monumental economic developments is that large numbers of individuals are crowding public shelters, living on the streets, or residing temporarily in substandard or precarious housing. Moreover, the fastest growing segment of this burgeoning homeless contingent is families with children (Institute of Medicine (IOM), 1988). Nationwide, an estimated one-third of homeless Americans are members of families with children, and roughly one-half of that group are children. There is much debate about precisely how many children are homeless, and oft-quoted estimates range from 50,000 to over 500,000 (e.g., Egan, 1988). According to a recent, frequently cited government report, at least 68,000 to 100,000 children under the age of 16 are homeless on any given night (Government Accounting Office (GAO), 1989). If we accept this estimate, and recognize that it does not include that invisible population of unaccompanied homeless and runaway youth, we must acknowledge that the population of homeless children across the country roughly equals the total number of children in Atlanta, Boston, Miami, or Newark.

The fact that families with children are the fastest growing subgroup of the homeless population, along with their increasing visibility both on our urban streets and in rural and suburban communities, has motivated both popular and legislative attention. Additionally, the research community has begun to invest rigorous, empirical attention to the causes and psychological consequences of this state of deprivation, particularly regarding children. Unfortunately, there is a paucity of longitudinal research, hampering our ability to relate the onset of homelessness to specific individual and environmental characteristics, to identify short- and long-term effects, and to identify individual differences in outcomes (Molnar & Rubin, 1991). More generally, there is too little empirical information available to distinguish keenly between effects that are attributable to being homeless and the more global effects of growing up in extreme poverty.

The purpose of this paper is to review very briefly the extant literature on the varied threats to the healthy and productive development of the growing number of homeless children. Our focus will be on the cost of these threats to educational achievement. Our hope is to stimulate thought and discussion of appropriate strategies for intervention that may buffer these children from the various disadvantages that confront them once they arrive at the doorstep of the public education system. Certainly, greater knowledge of individual paths to homelessness, in addition to increased availability of affordable housing, are essential to stem the tide toward increasing numbers of homeless individuals. Meanwhile, it is imperative to develop effective interventions that can function within the context of homelessness. To this end, we suggest that some substantial proportion of research and policy efforts be devoted to the design and implementation of early educational intervention.

The condition of homelessness and life in shelters places children under high levels of stress, and exposes them to a multitude of threats to healthy development (Solarz, in press). For example, children who are homeless are at greater risk for virtually all medical disorders experienced by children generally (Alperstein et al., 1988; IOM, 1988; Miller & Lin, 1988). The rate of chronic physical disorders is twice that found in otherwise similar but domiciled populations (Wright, 1987). These illnesses include anemia, asthma, upper respiratory, skin, and ear infections, gastrointestinal problems, and lice infestation. Homeless children are also especially susceptible to infection because they are less likely than are their peers to be properly immunized (IOM, 1988). The physical condition of shelters is often dangerous or toxic, resulting in a high rate of accidents, exposure to lead poisoning, or infection from unsanitary cooking facilities (Gross & Rosenberg, 1987). Finally, children who are homeless are frequently without adequate health insurance coverage. In one study conducted in Washington State, 35% of a sample of sheltered homeless children had no insurance (Miller & Lin, 1988). Ironically, but not unexpectedly, the condition of being homeless not only causes health problems, but it perpetuates and exacerbates poor health by compounding financial and physical impediments to the treatment of disease.

Nutritional disorders that are virtually nonexistent among representative samples of American youth, such as iron deficiencies, plague a higher percentage of homeless children (IOM, 1988). While both housed poor and homeless families report

inadequate diets, homeless families experience more periods of hunger and food deprivation (Wood et al., in press). Additionally, the general unavailability of refrigerators in shelters and welfare hotels makes in difficult for women with infants to keep formula from spoiling (Alperstein et al., 1988).

In its 1988 report, the Institute of Medicine included homelessness as one of the factors that places children at risk for emotional disorders (IOM, 1988). Many other risk factors for emotional disturbance are common among homeless children, including poor prenatal care, chronic physical illness, poverty, abuse or neglect, disturbed family relationships, parental mental illness, and exposure to toxic chemicals or drugs. The few existing studies of the behavioral and emotional status of homeless children have been conducted with children living in temporary shelters. These studies indicate that a majority of the children suffer from multiple developmental delays and a variety of behavioral problems, often serious enough to suggest the need for formal intervention. For example, Ellen Bassuk and her colleagues found widespread evidence of considerable anxiety, depression, demoralization, and other emotional difficulties among the children of homeless families living in Massachusetts family shelters (Bassuk & Rubin, 1987). Further, 47% of the preschoolers in that study failed in at least one of the four areas evaluated by the Denver Developmental Screening Test: gross motor skill, fine motor coordination, language development, and personal/social growth. Fourteen percent of the preschoolers failed in all four areas. More recent work by Molnar confirms Bassuk's findings of disturbed emotional functioning in homeless, preschool children (Molnar et al., 1991).

The physical and psychological stresses that attend homelessness and contribute to poor health also impede access to and the effectiveness of education. Indeed, several reports confirm this expectation of impaired academic performance among homeless, elementary school children. For example, an investigation of children residing in shelters in New York City found that less than half (43%) of homeless children were reading at or above grade level, compared with two-thirds of students citywide (Rafferty & Rollins, 1989). Just over a quarter scored at or above grade level in math, compared to 57% of their peers. The achievement levels of the homeless children in this study were also substantially lower than were those of other students residing in the school districts where the shelters were located.

In addition to the many physical and emotional impediments to academic achievement outlined earlier, there exist multiple systemic barriers to education that uniquely afflict homeless children. These include lack of availability of adequate educational services, inadequate shelter conditions, and shelter instability (Rafferty & Shinn, in press). More specifically, estimates of the percentages of homeless school-aged children who regularly attend school vary widely, from a low of 15% by the GAO (1989) to a high of 57% by the National Coalition for the Homeless (1987). Additionally, studies suggest homeless children miss school on an intermittent basis much more often than do housed poor children. In one study conducted by Wood and his colleagues, homeless children typically missed school because their families were in transition, and they missed an average of five days each time they made a transition between schools. In contrast, the housed children typically missed school because of ill health (Wood et al., in press).

A number of barriers make it difficult for homeless children to enroll in school. The lack of appropriate documents, such as birth certificates and immunization records, may make it difficult for homeless families to register children for school (U.S. Conference of Mayors, 1987), and significant delays can be experienced when records are transferred from schools where children were previously enrolled (Department of Education, 1989). Children living temporarily with relatives or friends may have difficulty entering new schools if the absence of a legal guardian prevents registration (National Coalition for the Homeless, 1987). And even when enrolled, homeless children face additional barriers to school attendance. For example, attendance at the previous school may require long daily trips on public transportation, for which necessary money and adult supervision may not be available (National Coalition for the Homeless, 1987). Some homeless children face ridicule from their classmates when it is discovered that they are homeless (Egan, 1988; Sanchez, 1988). It may also be difficult to find the privacy and quiet necessary to complete assignments when living in public shelters or otherwise overcrowded circumstances (National Coalition for the Homeless, 1987). Finally, without proper health care coverage, visual and hearing impairments may go undiagnosed or untreated, interfering with a child's ability to profit in the classroom. In sum, homeless children often come to school hungry, in dirty clothes, exhausted, without homework done, and even unable to make out clearly the writing on the chalkboard.

Three decades of psychological research in the tradition of Bowlby and Ainsworth have convinced most of us that instability is detrimental to many facets of child development. In particular, the stability of early relationships is essential to healthy social and emotional functioning, and may have consequences for cognitive functioning (Campos et al., 1983). According to several national surveys (GAO, 1989; IOM, 1988), most of the homeless children in the company of at least one family member are under the age of 5. Consequently, they are spending a critical period of development without the stability of a permanent home, and, too often, without the stability of a consistent and predictable caregiver. School is especially crucial for these children, because it may instill a sense of geographic, social, and intellectual stability that they otherwise lack (National Coalition for the Homeless, 1987). Additionally, and despite the limited amount of research on the developmental abilities of homeless preschool children, the literature suggests that important predictors of school success, such as language development, motor skills, and social development, are compromised by homelessness (Rafferty, 1989). These deficits may translate into anxiety, aggression, low self-esteem, and depression in the later school years, due in part to negative feedback from peers and from early failures. There are also reports that younger children suffer more from frequent moves than do older children, typically exhibiting symptoms of developmental regression (Kliman, 1968).

Consequently, if these children are to succeed later in life, preventive interventions must be implemented when they are in their preschool years.

Despite this obvious need for special early intervention services for homeless preschoolers, and emerging evidence that such intervention buffers children from the full force of their impoverished circumstances (Molnar et al., 1991), few have access to day care, and few are enrolled in Head Start. In New York City, only about 15% to 20% of homeless children aged 5 or younger who live in welfare hotels are enrolled in any early childhood program (Vanderbourg & Christofides, 1986; Molnar et al., 1988). Similarly, Bassuk et al. (1986) reported that only 17% of the children aged 5 or younger surveyed in Boston shelters were in day care or counseling, despite evidence of substantial developmental delays and emotional difficulties. Even when slots are available for services, there is evidence that many homeless families never access them. Reasons for underutilization range from lack of motivation or awareness of services to fear of exposing children to dangerous local environments, lack of clean clothing, fatigue, and illness (Molnar et al., 1988).

Research indicates that the lack of a stable residence has direct and deleterious effects on the physical and psychological health of homeless children, and on their educational opportunities. In the words of Tennessee Department of Education Commissioner Charles Smith, "Deprived of basics such as proper heating and clothing, attending school on a regular basis is difficult. Many of these children feel rejected and are shuffled around so much, they fall far behind academically. These children need an assurance that they are worthy of love and consideration as human beings; they need help in developing self-esteem" (Tennessee Department of Education, 1988).

In view of evidence of substantial educational deficits among these children, and data documenting the need for stable relationships in early childhood, we propose that a large proportion of homeless preschoolers arrive at school unprepared to learn effectively. There is immediate need, therefore, for researchers and policy makers to focus on the special needs of homeless preschoolers. However, there seems to be nearly universal concern among both representatives of Federal agencies and advocates that creating complex administrative bureaucracies to ameliorate the problems of homelessness contributes to the institutionalization of those problems. For example, the 101st Congress authorized $55 million for family support centers at or near public housing as a means of homelessness prevention. The Administration did not request funding for this program, however. In response to inquiries, HHS has noted that the department funds family support projects through the Comprehensive Child Development Centers program and through Head Start, both of which provide services to homeless children. Their position is that local providers frequently express frustration at having assistance for the same population fragmented in numerous funding streams, and funding another program that duplicates existing ones would add to that frustration (M. Jewel, personal communication, May 1991).

Beyond such concerns about institutionalizing homelessness, it can also be argued that developing a comprehensive and coordinated system of homeless services is counterproductive if homeless families will be returning in a few months to under-funded, overwhelmed mainstream services. Rather, there is a need for continued linkages to services such as subsidized child care, prenatal care, and particularly to Head Start.

With these caveats in mind, we propose that policy makers concerned with the homeless population could learn much from the legacy of Head Start, a program that has, for 26 years, excelled in preparing impoverished children for academic success, providing nutritional supplements, and offering preventive health and mental health care. Head Start also offers a model of parental involvement -- a critical component of empowerment that may break the cycle of continued underachievement. Finally, Head Start excels at promoting neighborhood integration and collaboration between community organizations providing services. This aspect of the legacy is particularly salient in the present context, for two reasons. First, it offers an opportunity to influence public perception and community receptivity to the presence of homeless individuals in the neighborhood. Second, we know that the needs of homeless families, and the complexity of access, placement, transportation, and instructional issues involved in educating homeless children, cut across traditional lines of service delivery.

Of course, in advocating enhanced linkages between homeless preschool services and Head Start, we also support expansion and increased funding of that program. Concurrently, Head Start administrators might be admonished to attend more explicitly to this particular group of "the neediest of needy." For example, Head Start officers should consider whether hours of operation and program performance incentives regarding attendance and follow-up tend to exclude homeless children. Also, program directors need to be aware that homeless mothers may be overwhelmed by the many burdens they face, including a lack of permanent residence, absence of a spouse, child care, unemployment, estrangement from friends and family, and perhaps alcohol or substance abuse. For these reasons, Head Start might need to develop more assertive outreach efforts than is typical. More generally, with a budget increase of half a billion dollars and a mandate to increase enrollment beyond the 24% of impoverished 3- and 4-year olds currently being served, Head Start administrators might take the lead in developing a comprehensive agenda that includes the basic research, intervention, and evaluation components necessary to prevent the vulnerabilities of homeless children from becoming the disabilities of future adolescents and adults. Bolstering the research and development component of the program would be an ideal way to gather critical information about the developmental trajectories of this group, while delivering essential services.

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Some Effects of Homelessness and Chronic Poverty on Preschoolers and their Families With Implications for Head Start Practice *Janice Molnar*

Child poverty has been growing at an alarming rate in this country. In 1989, following a seven-year period considered one of economic recovery, one in five American children lived in poverty (CDF Reports, 1990). That same year, 40.5% of poor children lived in families with incomes of less than half the poverty line, and families with children comprised 38% of the homeless population (U.S. Conference of Mayors, 1989). The presence of young children growing up without a stable roof over their heads has focused considerable concern on the implications of homelessness for child growth and development. A small but growing body of literature presents a sobering picture. In so doing, concerns about the development of poor housed children have been raised as well. Although work done in Boston by Ellen Bassuk and her colleagues (Bassuk & Rosenberg, 1988, 1990) revealed greater degrees of impairment in language, social skills, and motor development among homeless preschoolers as compared to a group of low-income housed children, this pattern of findings has been only partially confirmed by others. Leslie Rescorla and her colleagues in Philadelphia (Rescorla et al., 1991) documented a less definitive pattern of results. They reported significant differences favoring the comparison group children on only two of five developmental measures, primarily in the cognitive domain. Other studies documenting developmental delays among homeless children under the age of 6 (Wagner & Menke, 1990; Whitman et al., 1990) have not employed comparison groups, thus, making conclusions about the relative developmental status of homeless compared to other poor children problematic at best.

The picture is also mixed as to whether homeless preschool-aged children are more at risk than low-income housed children with respect to psychological and emotional well-being. The Boston study (Bassuk & Rubin, 1987) did not find meaningful differences between homeless and low-income housed preschoolers. Both groups exhibited higher rates of behavioral problems than the norming group. However, the Philadelphia study (Rescorla et al., 1991), and one conducted in Los Angeles by David Wood and colleagues (Wood et al., 1990), documented significantly more homeless than low-income housed children exhibiting behavioral problems at a rate indicating the need for psychiatric referral. Exploratory observational studies lacking comparison groups have documented a whole litany of behavioral and emotional problems among homeless children that mirror the findings of those based on maternal report, including: short attention span, withdrawal, aggression, speech delays, sleep disorders, difficulty in organizing behavior, regressive behaviors, immature motor behavior, and inappropriate social interactions with adults and peers (Molnar, 1988; Phillips & Hartigan, 1984).

Of course, child development cannot be considered in isolation from the total family context. It should be obvious that homelessness exists along a continuum of poverty, and poverty is known to negatively affect child development. It has a direct effect insofar as the immediate physical environment compromises children's opportunities for optimal growth through inadequate nutrition, unhealthy/unsanitary living conditions, and a paucity of developmentally appropriate materials or activities. But, poverty also has an indirect effect on children through its impact on other family members and the ways in which they interact with the child. A growing body of literature (cf McLoyd, 1990) suggests that the inconsistent, unresponsive, and overly punitive parental behaviors frequently characteristic of economically disadvantaged parents -- which are known to have deleterious consequences for children's socioemotional functioning -- are mediated by the psychological distress in the parent brought about by poverty and the cluster of negative life events, chronic negative life conditions, and inadequate supports that follows in its wake.

Homelessness is believed to exacerbate these already poor conditions by adding the dimension of literally "no place to call home." Like poverty, homelessness encompasses multiple dimensions. In addition to the absence of a place to live, it entails greater instability, unpredictability, and often extreme crowding, coupled with increased health risks, lack of privacy, violence, and, in short, more stress. The shared hypothesis underlying the small body of existing research is that the added stressors of homelessness lead to even greater detrimental effects on children's development than poverty alone, that is, poverty that includes at least a roof over one's head. The study, whose findings are presented below, had this same hypothesis.

To address the relationship between factors of poverty, child development, and family functioning, a study -- the New York Family Services Project (NYFSP) (Molnar et al., 1991) -- was conducted on 160 families with preschool-aged children living in poverty. Seventy-six of the families had permanent housing, the other 84 were homeless and living in emergency shelters in New York City. Both samples were two-thirds Black and 30% Hispanic, with a small minority of white and Asian families. Both groups were sampled to match the overall ethnicity of families in the New York City shelter system. A key objective of the study was to better understand the impact of poverty on the development of young children and their families as well as the added impact of homelessness.

METHOD: Two measures were used to assess child functioning, the Early Screening Inventory (ESI) (Meisels, Atreya, & Olson, 1988; Meisels & Wiske, 1988), and the Child Behavior Checklist, (CBCL) (Achenbach & Edelbrock, 1983; McConaughy & Achenbach, 1988). The Early Screening Inventory is a brief individually administered developmental screening instrument, used to assess children's performance in speech, language, cognition, perception, and gross and fine motor coordination. Designed for use with children between the ages of 3 and 6, it assesses: visual-motor skills (including drawing a person, copying forms, visual sequential memory, and block building), language and cognition (including number concept, verbal expression, and verbal reasoning), auditory sequential memory, and gross motor/body awareness. The Child Behavior Checklist is designed to tap a broad range of children's behavior problems and adaptive competencies, focusing primarily on the occurrence of behavioral problems relevant to children's mental health referrals. The 100-plus items are further grouped into two broad-band factors -- Internalizing and Externalizing -- which correspond to the widely identified distinction between fearful, inhibited, and over-controlled behavior on the one end of the behavioral continuum and aggressive, antisocial, and undercontrolled behavior on the other.

An array of family variables were examined, including background variables and demographic information, housing history, maternal depression, life events, social supports, and service linkages, focusing especially on the mothers. This paper, however, focuses only on maternal depression. The reason for this is twofold. Not only does anecdotal evidence point to depression as one of the most commonly observed effects of homelessness on mothers, but research suggests that sustained parental depression, with its attendant psychological unavailability, has particularly negative consequences for children, more so than other forms of mental illness (e.g., Lyons-Ruth, Botein, & Grunebaum, 1984). Maternal depression was assessed using a screening instrument developed by the National Institute for Mental Health's Center for Epidemiologic Studies to measure current levels of depressive symptomatology in the general population. The Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977) is a 20-item, Likert-type self-report symptoms checklist available in English and Spanish. The items represent the major components of depressive symptoms identified in the clinical literature: depressed mood, feelings of guilt and worthlessness, helplessness and hopelessness, lessened activity, and appetite and sleep disturbances. Although the CES-D is not a diagnostic tool, the cut-off score of 16 differentiates well between psychiatric inpatient and general populations.

RESULTS: The Early Screening Inventory and the hypothesis that housing status (whether children were housed or homeless) would have an observable impact on the developmental status of preschool-aged children. The mean ESI scores for the housed and homeless groups did not differ substantially from each other. Neither did the distribution of scores. But while homelessness -- which in this study was defined as shelter living -- did not appear to have an impact on developmental status, poverty certainly did. Not even half (48%) of the total sample scored in the normal range. When compared to norming groups, both groups did equally poorly when compared to norming groups. Except for the oldest age group (children between the ages of 5 years 6 months and 5 years 11 months), mean scores for the 4- and 5-year-olds who participated in our study were almost a full standard deviation below the ESI standardization group. Proportionately, more than twice as many were classified in both the "Rescreen" and "Refer" categories. Fortunately, this is not the entire picture. Both the housed and homeless samples were divided into two groups: children who were enrolled in early childhood education programs (approximately 60% of the sample) and children who were not (and had not been previously). We found that even though the children were delayed as a group, early childhood education had a positive impact on their development. Even for children with as little as three months of Head Start or publicly funded day care, performance on the ESI was consistently higher for children who were enrolled in an early childhood program. Although these differences were not statistically significant, this may likely be due to the small subsamples available for analysis at each 6-month age-break.

For children's psychological and emotional development, as measured by the CBCL, we found that the mean raw scores of the homeless sample (boys and girls combined) were significantly higher than those of the housed sample ($t\ [95] = 2.01$, $p < .05$.), thus indicating a higher incidence of emotional problems, such as anxiety and depression, among children living in temporary housing. Moreover, the range in incidence of reported behaviors were more extreme among children who were homeless than among

low-income housed children. Specifically, a significantly higher percentage of homeless 4- and 5-year-olds scored above the clinical cut-off than housed children of the same age (33% vs. 11%, respectively) ($X^2[1, N = 98] = 6.68$, $p < .01$). As a whole, children who were homeless were more likely to be above the clinical cut-offs for both the Internalizing and Externalizing factors than children who were housed. The percentage of housed children above the clinical cut-offs for Internalizing and Externalizing more or less approximated that of the non-clinical standardization sample, whereas the homeless group fell between the non-clinical and clinical samples. Again, what this means is that homeless children do not behave like a normative sample, or even like their poor, housed counterparts. This pattern prevails on the 10 narrow-band scales of the CBCL as well. While lower than the rates of a sample being referred for mental health services, the higher incidence of reported behavioral problems among the homeless group is a disturbing finding.

One of the most reliable predictors of adult mental health problems -- particularly depressive symptomatology -- is poverty/economic stress (Belle, 1990). Thus, while we expected higher rates of depressive symptomatology among our total sample of families than among the general population, we nonetheless expected an even greater sense of despair, as reflected in scores on the CES-D among families who had lost their housing. This expectation was only partially confirmed. Instead of homeless families exhibiting higher rates of depression, both housed and homeless families evidenced equally serious manifestations of the daily frustrations, anxieties, and sense of helplessness that profound poverty imposes. Moreover, consistent with findings from other research using the CBCL (Friedlander, Weiss, & Traylor, 1986; Richters & Pellegrini, 1989), depressed NYFSP respondents -- irrespective of housing status -- reported more and different kinds of behavior problems in their children. This relationship was indicated by a significant positive correlation between mothers' scores on the CES-D and child behavior problems as measured by the CBCL total problem score ($r=.23$, $p<.05$ for the housed mothers and $r=.41$, $p < .001$ for the homeless mothers).

Although it was not possible in this study to parcel out the extent to which a mother's depressed state may have colored her perceptions about her child's behavior -- either by making her more sensitive to negative behaviors, or by making her feel more generally negative about life in general, including her child, independent of the child's actual behaviors -- other researchers have. For example, Richters and Pellegrini (1989) compared mothers' CBCL ratings of their 9-year-old children with ratings made by the children's teachers. Teacher ratings essentially matched those of the mothers, which in turn were related to depressive diagnosis. Children of depressed mothers were independently rated by both their mothers and teachers as having significantly more behavioral problems than children of non-depressed mothers. However, in spite of evidence such as this, the independence of psychological state on maternal ratings of child behavior has not been adequately established.

DISCUSSION: The patterns exhibited by these data have clear implications for the effectiveness of Head Start programs in two principal respects: first, highly stressed (and depressed) parents are frequently too overwhelmed to marshall the time, energy, or resources to parent the way they wish they could, much less participate in parent support activities. Second, children whose basic developmental needs are frustrated outside the classroom have difficulty flourishing within it. Although Head Start's mission has always been to serve low-income populations, the size and scope of poverty has changed drastically in recent years. A greater proportion of children (nearly one in four, according to the National Center for Children in Poverty, 1990) are now being born into poverty each year, and the ramifications of that poverty are more severe than in the past. The real value of AFDC benefits, for example, has declined drastically since 1970, in effect dropping recipients further and further below the poverty line (McChesney, 1991). As a result, demands on Head Start have become more complex and more urgent, as children and families bring with them the consequences of the life stresses borne of intense, chronic poverty. Fortunately, the Head Start program has long served as a vehicle for innovation in curriculum design and parent involvement.

What is called for is both a classroom curriculum for children that will help them learn those stress- coping skills essential to development and a parent involvement program that will emphasize stress management as a key element of healthy family functioning and parent-child interactions. The bottom line, of course, is high-quality early childhood programming, as operationalized both by the existing Head Start Standards and criteria established by the National Association for the Education of Young Children (Bredekamp, 1987). However, in order to take account of the special circumstances of homelessness and/or chronic poverty, certain programmatic accommodations must be made, so that the ongoing classroom program becomes more sensitive to the needs of children from highly stressed families.

Homelessness and extreme poverty is frequently characterized by chaos, instability, and lack of control. The curriculum implications of these environmental conditions are basically quite simple. The antidote for a chaotic environment is one that is not overstimulating, one that, for toddlers and preschoolers alike, is built around a nurturing, homelike routine (incorporating rest time, food preparation, and meals). To counteract the effects of instability, a structured and predictable environment is essential. And to counteract lack of control, an early childhood environment needs to offer choice within limits. For example, some of the aspects of the classroom program that require special emphasis include: space (private areas, personalized space, a warm and "homey" environment) and provision for indoor and outdoor space for large motor activities; routines (simple, relaxed, and predictable routines, with special emphasis on preparing children for transitions) and extra support and individual attention to children during meals and naptime; materials and activities (less variety and more quantity, both to reduce stimulation and friction with other children), with lots of exposure to open-ended, expressive materials, especially paint, clay, water; as well as developmentally appropriate materials, which

may mean some toddler toys in rooms designed for preschoolers; active reinforcement of children's problem-solving and coping skills; and adult-child groupings (where smaller class sizes are not possible, the creation of small groups within the larger group to allow for time for individual attention, bonding between teacher and child) -- in short, a more predictable, therapeutic social environment.

It is important to work with teachers and other program staff to first elicit their concerns about the classroom program, and those areas in which they desire support. For example, the constant comings and goings of highly transient families makes bonding an often painful process. The challenges teachers face as a previously withdrawn child begins to test the environment through aggressive, acting-out behavior are difficult ones, which often contribute to the teachers' own stress. Teachers working in stressful environments need tremendous amounts of ongoing support and affirmation.

Parents living in chronic poverty struggle daily with a steady stream of everchanging and overwhelming demands. Involving parents needs to be done gently, individually, flexibly, and in such a way that it does not become yet another burden for parents to shoulder. The two primary areas in which to focus may be: parent-child interaction -- helping parents appreciate and understand their children and nurturing parents so they can better nurture their children; and stress and coping for the parent -- focusing on stress management, along with concrete service linkages. Parents need to be acknowledged both in their role as "parents" as well as "adults" with their own sets of personal needs. To be effective, assistance and support need to be creative and wide-ranging, thereby stretching the traditional definitions of "parent involvement" considering past their usual boundaries.

CONCLUSION: This paper began with a look at homelessness and its effect on children and families. Contrary to expectations, the most striking finding was the similarity between homeless and low-income housed children and their families on selected outcome measures. By no means does this suggest that homelessness is not a potentially devastating experience. Rather, it speaks to the profound toll that poverty takes. Homeless families experience many of the same pressures and environmental demands as other poor families. As the data presented here illustrate, the effects on children and families can be quite damaging. Possible irrelevance of test items and tasks to the day-to-day world of children struggling for their very lives does not diminish the negative consequences for later development of the paucity of developmentally appropriate experiences during the early years. Similarly, the obvious justification of high rates of maternal depression does not remove the deleterious consequences for child outcomes. And in neither case do existing research protocols take into account the positive coping strategies that both mother and child employ under what are clearly the most adverse of circumstances.

In short, the growing body of research on homelessness and chronic poverty leads to much broader policy and programmatic implications than a singular focus on homelessness would suggest. Specifically, as Head Start plans for the 1990s, intervention strategies need to be designed and tested that support the optimal development of children and families living under conditions that challenge the notion of ourselves as a civilized society.

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Discussion *Vonnie McLoyd*

There is a good bit of evidence that the pernicious conditions found in public housing chip away at an individual's self-esteem, dignity, and sense of hope. One resident of a federally subsidized apartment building says, "A rotten place to live leads to a rotten life." You feel less human. You feel that nobody cares, and, eventually, you don't care.

In recent years, increasing numbers of the poor have lost access to even the worst government-assisted and privately owned housing. Homelessness, especially among children, increased precipitously during the 1980s, due in part to deep cuts in Federal housing assistance, the elimination of Federal housing construction, rampant conversions of apartments to condominiums, and local government policies in zoning laws that, in effect, keep public housing out of their jurisdiction.

This trend should occasion great concern, because as bad as the physical conditions of public housing and the psychological distress they create are those associated with shelters for the homeless may be even worse. There is good reason to believe that the threat of homelessness adds to the chronic and acute stressors created by poverty. It would seem to render void any sense of stability, predictability, and normalcy. Also, there is a real possibility that a family that has taken refuge in a shelter would have to contend with crowding and increased health risks. Lack of privacy is another problem. These are things the average person does not have a grip on. The question that Molnar asks is whether the added stressors of homelessness add to even greater detrimental affects on children's development than poverty alone. This kind of work is difficult to undertake. Recruiting and interviewing homeless families in shelters in a way that elicits reliable information and does not create yet another stressor for these people requires great skill and sensitivity.

A very strong element of Molnar's work is the inclusion of a comparison group of low-income, but housed, families. In much of the prior research on homeless families, there has not been a comparison group. Molnar finds that children who are homeless evidence far more internalizing and externalizing problems than low-income children who are housed, but no group differences in developmental status. Her reason makes a lot of sense. Studies that make this comparison between the homeless and housed low-income groups have reported mixed findings, some reporting no differences, others reporting differences in favor of low-income, housed children. This is an area of research that is clearly in its infancy, but given the relatively recent saliency of the phenomenon of homelessness and this pattern of mixed findings, more complex research designs that incorporate variables that might influence homeless children's socioemotional functioning should be developed. A host of variables might be important, including some that Cryer and Harms identified in their research in North Carolina.

Things such as the proximate reasons for shelter use, the duration of stay in the shelter, the availability of siblings (an older sibling who might serve as a source of support for the younger child), whether the child receives quality day care, either on or off the shelter site, whether play spaces are available for children, and the stressful life events preceding the stay in shelters are all important. Another important variable might be how well the parents are coping with this experience as a determinant of how well the child is coping -- the mother's causes and attributions about her homelessness and how hopeful the mother or the parent is about the future and being able to solve the problem of homelessness. Burgeoning research on homelessness could well be informed by other research on stress and coping in children that does not focus on homelessness, but does focus on concrete kinds of stressors. I hope, in the future, to see some integration of the work on stress and that of coping with homelessness.

Harm's research indicates that there is considerable variability in the facilities of homeless shelters in North Carolina. We need to combine the descriptive work she has done as a model with work on the impact of homelessness of the kind presented by Molnar to determine what conditions in homeless shelters lessen the adverse affects of homelessness. It is also clear that we need better descriptions of the homeless population of parents and their children if they are to better served, and not stereotyped. In the research that was presented here, we see great variability in the individuals being served in shelters. In Crier and Harms' study, about 6.5% of shelters report that drug addiction was a common reason for shelter usage, whereas in Edwards' work, a substantial number of women in homeless shelters seem to be using alcohol, cocaine and marijuana.

We have the impression that drug abuse is a common problem among homeless individuals. That perception may not be well grounded. In order to serve homeless families better, we need to have a better sense of who we are dealing with. Edwards' work noted that almost a third of the women in the shelters have been employed full-time in the last three years, which runs counter to the perception that many people have of homeless adults -- that most of them are unemployed and have very checkered work histories, if they ever worked at all. There is a lot of political value in developing an accurate picture of the homeless population.

We must humanize homeless people and enhance the perception that they are deserving of help if we are going to muster the political support needed to solve the homeless problem in this country.

Edwards' work is important because it examines the consequences of child abuse and being the child of an alcoholic parent. One of the findings I reported in her study is that maternal alcoholism, not paternal alcoholism, is a significant predictor of alcohol and drug use among daughters. Other researchers have reported similar findings. What do we know about the processes and factors that underlie this relation? Is it because fathers are often absent during a substantial period of the women's childhood? Is it because daughters more closely identify with their mothers? Does this finding hold true for males or sons as well? What are the implications of this work for prevention?

Panel 122 IMPACT OF FAMILIAL ENVIRONMENT ON SCHOOL ADJUSTMENT

Chair/Discussant: **Joan Lombardi**

Studies on Parental Empathy: Parent and Child Correlates *Norma Deitch Feshbach*

Studies addressed to the assessment of parental empathy are reviewed and data relevant to the relationship of parental empathy with other parental and family attributes are considered. Research relating parental empathy to personality characteristics and adjustment of the child, including empathy, are then examined. The first study focuses on parent and child correlates of mother/father empathy with elementary-aged children. A second study focuses on these relationships with younger samples in abusive and clinic families. A third study also focuses on the interrelationships of parental empathy, parental socialization attitudes, and behavior in preschool children. A model of empathy and its role in family dynamics is presented. Implications of the findings for training components of the Head Start Program are discussed.

The presence of parent involvement as a major component of contemporary education in general, and of Head Start in particular, is an acknowledgment of the significant role that parents play in childhood education as well as child development. Family context, parent behavior, parent values, and attitudes influence the cognitive capabilities and achievements of children along with the child's social and emotional development (Maccoby & Martin, 1983). Parent attributes that are germane to the child's cognitive development are not restricted to parental cognitive stimulation and related cognitively oriented behaviors. Emotional transactions between parent and child are also implicated in the child's cognitive development as well as affective development. A central thesis of this paper is that parental empathy, which entails cognitive and affective features, plays a prominent role in the matrix of antecedents and consequences that characterize the parent-child interaction.

My own research on empathy has been guided by a model of empathy that includes both cognitive and emotional elements. Empathy, a shared affective experience between the emotional experience of an observer and an observed includes three components: the cognitive ability to discriminate affective cues in others; the more mature cognitive skills entailed in assuming the perspective and role of another person; and emotional responsiveness, the affective ability to experience emotions (Feshbach, 1973, 1975, 1978). If a parent experiences some degree of sadness when observing sadness in a child, the parent's reaction would be considered empathic, if the parents' emotional response was based on discrimination and understanding of the child's perspective. Emotional sharing without these cognitive mediators is not "true" empathy and may simply be a form of emotional contagion.

An empathic parent should be more understanding of a child's perspective and feelings than the parent low in empathy and be less punitive, because hurts inflicted on one's child will be vicariously experienced by the parent. Moreover, if the affective response is modulated, it has a positive impact for both parent and child. For the parent, it amplifies and strengthens the cognitive understanding that gave rise to the shared affective response. For the child, it serves as a cue that the parent comprehends and shares the child's experience. In addition to facilitating understanding of the child and sensitivity to the child's feelings, parental empathy can influence the child's development of self through validation and reinforcement of the child's experiences. However, excessive parental empathy can be damaging if it blocks the parent from appropriate child-training behavior, fosters intrusiveness, and is self-centered rather than child-centered.

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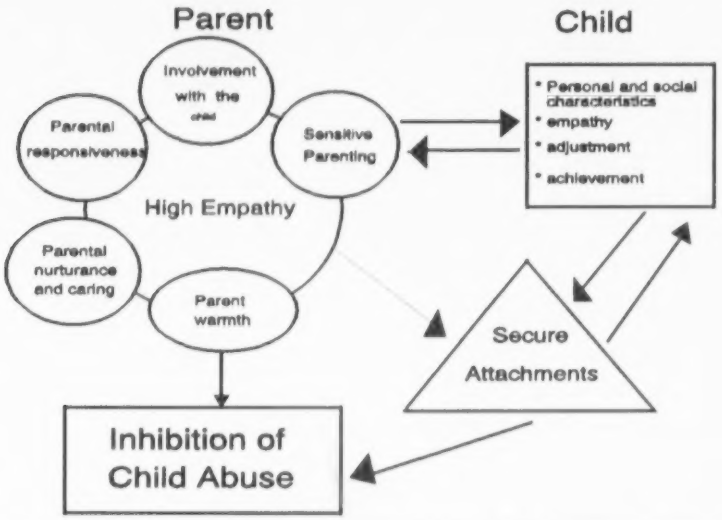
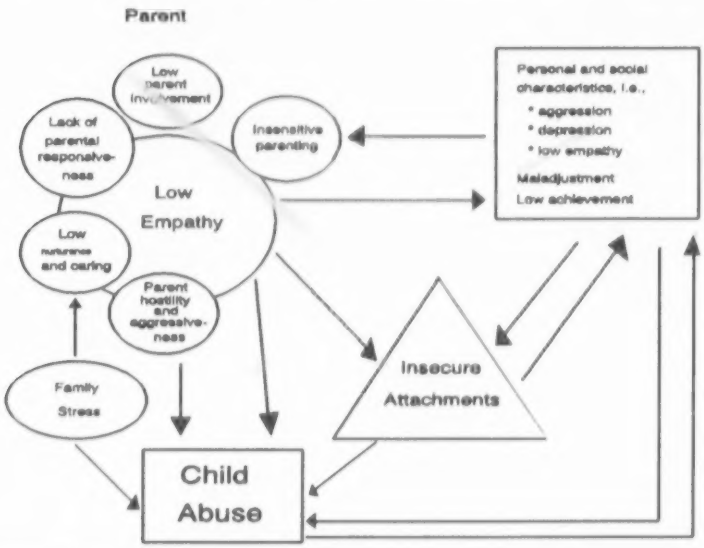
Parental empathy does not function in isolation from other parental attributes, but is an integral part of a constellation of socialization factors. As I have proposed elsewhere (Feshbach, 1987), parental empathy should be associated with parental warmth, sensitivity, low punitiveness, and positive involvement with the child, and negatively correlated with the use of such socialization techniques as repressiveness, inhibition of affective expression, and punitiveness. One would also anticipate a mutually facilitating relationship between parental empathy and the attachment relationship. While the research that I will present is primarily addressed to the effects of parental empathy, it must be recognized that empathy is an integral part of a constellation of socialization factors (figure 1a).

Figure 1a. A SCHEMATIC ILLUSTRATION OF THE INTERRELATIONSHIPS AMONG PARENT EMPATHY, RELATED PARENTAL ATTRIBUTES, AND CHILD PERSONALITY, ADJUSTMENT, AND COGNITIVE FUNCTIONING.



A descriptive model articulating the interrelationship of empathy with other parental attributes and with child behaviors is depicted in figure 1b. The research findings to be reviewed here bear upon various facets of this model. My investigation of parental empathy has had two major directions. One direction has been the study of the relationship of parental empathy to parental personality and socialization attributes to which parental empathy should be theoretically linked. The other has been an examination of child attributes and behaviors that theoretically should be influenced by the degree of parental empathy.

Figure 1b. A SCHEMATIC ILLUSTRATION OF THE INTERRELATIONSHIPS AMONG PARENT EMPATHY, RELATED PARENTAL ATTRIBUTES, AND CHILD PERSONALITY, ADJUSTMENT, AND COGNITIVE FUNCTIONING.



A self-report instrument based upon the three-component model of empathy, including items relating to spouses or partners as well as children, was developed. A factor analysis of these items yielded four factors (Feshbach, 1987): a cognitive factor, which included such items as, "I can guess what my child would like for a present"; a general empathy factor, including items with high loadings such as, "It hurts me when my child gets a shot from a doctor"; a partner/spousal empathy factor; and an affective expression factor, including such items as, "I do not like to burden my partner/spouse with my feelings."

The first study compared attributes and behaviors of preschoolers and their mothers who constituted three groups: physically abusive families, clinic families, and control families (Feshbach & Howes, under review). The abuse parent group manifested significantly lower scores than both the control and clinic parents on the cognitive and partner factors, and lower scores than the controls on the general empathy factor. The abusive mothers had significantly higher scores than the controls on the fourth factor, affective expression. Correlations of the empathy factors with mother/child observations yielded significant positive correlations of the general, partner, and cognitive empathy factors with such features of maternal behavior as amount of positive affect displayed and degree of maternal involvement in the child's behavior, and negative correlations with the amount of negative affect. Maternal empathy also related to child behaviors in the interaction situation. One or more of the first three factors correlated positively with child compliance, child self-control, and child positive affect and inversely with negative affect displayed by the child. Yet affective expression correlated inversely with child compliance, self-control, and child positive affect, and directly with child negative affect. Thus, the affective expression factor that was strongest for the mothers who abuse their children appears to have dysfunctional consequences, despite its positive relationship to the three other empathy factors. In contrast, the latter reflect positive relationships with indices of effective functioning in parents and in children. The data suggest that while parental empathy has positive socializing implications, the affective expression component, untempered by the other empathy components, may have negative consequences for the child's adjustment.

Another series of investigation (Feshbach & Feshbach, 1987) involved elementary children, ranging in age from 7 to 9, and their parents, two-thirds of whom were mothers and one-third fathers. Maternal empathy scores were positively related to family cohesion and inversely related to family conflict and maternal stress. For fathers, only the correlation between paternal empathy and family cohesion approached significance (Repetti, Feshbach, & Nelms, in preparation). Also, for fathers, total empathy scores were uncorrelated with any of the assessed childrearing dimensions, although the cognitive and affective expression factors for fathers were inversely correlated with child-training dimensions of over-protection, inhibition of emotions, and punitiveness. For mothers, empathy proved to be a rather pervasive attribute, manifesting significant relationships with almost all of the childrearing dimensions assessed. Total empathy scores and most of the individual empathy factor scores were positively correlated with the degree of autonomy and affection reported by the mother in her childrearing attitudes and behaviors, and inversely correlated with degree of hostility/anger and punitiveness, with inhibition of the child's emotions and with degree of disagreement with the child (Tangney & Feshbach, in preparation).

The results also indicated maternal empathy to be inversely correlated with both the internalizing and externalizing symptom scores on the Achenbach psychopathology measure, with paternal empathy being inversely correlated with externalizing symptoms. These findings tend to hold for both boys and girls, with low empathy in mothers and also in fathers being predictive of externalizing symptoms such as aggression and hyperactivity, and low empathy in mothers being predictive of internalizing symptoms such as depression and anxiety.

Measures based on the child's behavior and on teacher reports were also found to be significantly related to parental empathy, especially maternal empathy. Children of more empathic mothers obtained higher empathy scores on the Feshbach Audio Visual Measure and on the Bryant Self-Report Questionnaire than children of less empathic mothers. When separate analyses are carried out for boys and girls, mother's empathy was predictive of daughter's empathy but was unrelated to the son's empathy. In addition, we found empathy at ages 8 to 9 to be predictive of achievement at ages 10 to 11. Maternal empathy was also positively related to the child's achievement. The correlations between maternal empathy and daughter's achievement scores were significant for reading and spelling, with the relationships being particularly pronounced for the Cognitive Factor. Also, daughters of empathic mothers tended to manifest significantly less aggression as assessed by self-report and by teacher rating. Father's empathy was unrelated to son's or daughter's aggression. A similar but more marginal pattern of relationships was obtained between parental empathy and indices of the child's depressive tendencies, with correlations with maternal empathy being consistently in the negative direction and approaching statistical significance. The final study to be reviewed involved a sample of 92 mothers and their 4-year-old preschool offspring (Feshbach, Sockloskie, & Rose, in preparation). Mother's empathy was again significantly correlated with the child's empathy, the relationship being significant for daughters and just falling short of statistical significance for sons. The positive relationship between mother-daughter empathy transcends age and type of instrument used to assess the child's empathy. Maternal empathy was also related to the child training of daughters, being positively correlated with nurturance and other indicators of child acceptance and support and negatively correlated with punitive and repressive approaches to training the child. Also, maternal punishment, like maternal empathy, is inversely related to daughter's empathy scores, a finding similar to that obtained in an earlier study of the socialization antecedents of children's empathy that initiated this research program on parental empathy (Feshbach, 1975).

The findings reviewed here are consistent with the descriptive model that places parental empathy in a context of a matrix of parental childrearing attitudes and behaviors that have a significant influence on the child's adjustment, affective dispositions and cognitive functioning. The parent component of the Head Start Programs can incorporate suggestions from these findings. A program could be devised that would help parents develop and refine the skills of affective discrimination, perspective and role taking, and controlled emotional responding that are entailed in empathic parenting. One of the advantages of introducing empathy training into the parent involvement aspect of the Head Start Program is the potential for heightening the consciousness of Head Start staff regarding the desirability and utility of an empathic orientation. In addition, I would like to recommend that an empathy component be directly incorporated into pre-service and in-service training programs for Head Start staff. Preschool teachers and child care staff function as parent surrogates. Consequently, many of the generalizations regarding the implications of parental empathy would appear to be applicable to the effects of an empathic orientation in early childhood educators.

At this point, it is important to recognize that an empathic orientation does not imply excessive parental permissiveness or lack of discipline. Rather, it implies greater parental understanding of the child's feelings and more effective communication of that understanding to the child. These empathic skills can then be utilized in the service of more appropriate parental discipline strategies. The implementation of empathy training programs for parents and teachers as well as young children should contribute to both the effectiveness of Head Start programming and to our basic knowledge regarding empathic processes and their role in child development and education.

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School Performance and Family Configuration *Doris R. Entwisle, Karl L. Alexander*

Among problems on the national agenda, the relatively poor school performance of children from single-parent homes ranks near the top, and there is reason for concern. Children from single-parent homes are held back more often, drop out of school earlier, and generally do not perform as well in school as do their counterparts who come from two-parent families (Hetherington, Camara & Featherman, 1983; Garfinkel & McLanahan, 1986). Recent demographics show that about 24% of children live with one parent, the large majority with mothers. In 1987, over 38% of female-headed white families with children under 18 and about 60% of female-headed African-American and Hispanic families were poor (Select Committee, 1989).

A number of explanations have been offered to account for the school difficulties of children who come from homes where fathers are absent. These take two main forms: 1) The economic status of female-headed households, considerably below that of two-parent households, is insufficient to provide the resources needed for children to thrive academically. From this perspective, the problem of father absence is seen mainly as a problem of reduced economic status, which leads to fewer books, games, recreational activities, and trips; also it may prevent the mother from spending time interacting with children, either because she works outside the home or must assume all the burdens of child care alone. 2) Fathers are important role models so that absence of a father decreases children's motivation for achievement and interferes with their normal psychosexual development. This latter position often underlies explanations of any gender differences in math performance favoring boys over girls.

The exact mechanisms by which single parenthood affects children's school performance are difficult to trace out, but using longitudinal data from the Panel Study of Income Dynamics, McLanahan (1985) concluded that among whites economic deprivation and the stress associated with recent family disruption account for nearly all the negative effects of single parenting on offsprings' school attainment. Her findings for African-Americans are more mixed, but do not support the notion that long-term absence of a male role model is the major factor underlying family structure effects on children's schooling.

The present report takes a new tack in trying to understand how family configuration affects youngsters' school performance. It examines the gains in mathematics achievement of a random sample of over 500 Baltimore children as they progressed through their first two years of elementary school. To separate home influences from school influences, the gains these children made while school was in session (winters) are looked at separately from the gains they made while school was not in session (summers). In winter we expect that resources in both the home and the school will support cognitive growth. In summer, however, school is closed, so growth over those periods should reflect mainly the influence of home resources. By this logic, if father presence in the home does affect children's school performance, we might have a better opportunity to see those effects in summer.

RESULTS: Table 1 shows gains by season that the Baltimore children made on the California Achievement Test for math concepts and reasoning over the first two years of school, as well as their total gains over that period. As would be expected, children gained much more when school was in session than they did when school was closed. Whether we use children's eligibility for subsidized

meals in school or parent's educational level as an indicator of family economic status, the patterning is clear: children who are less well-off tended to do almost as well or even better than those who are economically more advantaged when school is open. In the first winter, for example, white children whose parents are drop-outs gained 50 points, while their counterparts whose parents have some post-secondary education gained 34 points. Likewise, in the first winter, African-Americans on meal subsidy gained 48 points, compared to 43 points for those not on subsidy. In summer, however, the picture reverses. Poorer children lost ground while better-off children continued to gain. White children with the most highly educated parents gained over 14 points the first summer; white children of drop-outs lost almost 8 points. For African-Americans a similar summer pattern emerges, and can be seen when children are grouped by meal subsidy status.

Table 1. AVERAGE CAT MATH REASONING[a] GAINS BY SEASON (N's in parentheses)

	WHITES[b]					AFRICAN-AMERICANS[b]				
	Winter 1 (229)	Summer 2 (224)	Winter 2 (209)	Summer 2 (193)	24 Months (199)	Winter 1 (313)	Summer 1 (266)	Winter 2 (255)	Summer 2 (237)	24 Months (282)
Economic Status[c]										
Subsidy	48.0	-7.2	46.4	-4.6	85.3	48.4	-6.4	41.5	-5.6	79.5
Non-Subsidy	50.7	2.9	42.3	1.7	97.7	43.0	8.8	44.2	2.3	93.8
Parent Education[d]										
<12 years	50.4	-7.8	48.8	-8.1	87.5	45.7	-3.4	39.6	-5.4	78.3
12 years	56.8	-5.5	41.8	1.3	93.3	50.4	-6.2	40.8	-3.1	82.0
>12 years	34.4	14.5	39.1	8.9	96.4	44.9	2.0	46.2	-2.1	89.1
Family Status										
Father Present	49.0	-.3	43.8	.8	93.7	47.6	-.8	42.7	-1.3	87.8
Father Absent	50.0	-6.6	45.7	-7.6	86.4	47.0	-4.5	41.7	-5.8	78.4

[a] Math concepts/reasoning is measured by the CAT subtest given fall and spring of each school year. School records provided children's form C scores on the math concepts (reasoning) subtest of the California Achievement Test for October and May of each school year (level 11, first grade; level 12, second grade; level 13, third grade). Test norms (California Achievement Test, 1979, p. 53) show Baltimore students are 5 points below the norming sample (less than .2 standard deviations) at both the beginning and end of this two-year study.

[b] Fathers are present in 70% of white families, 44% of African-American families. An indicator of two-parent (father-present) family type was derived from parent interviews. Father-present families (coded 1) are contrasted with all other types (mother-alone, mother-extended, and mother-absent, coded 0). Family type is taken as fixed for the two-year interval under study. In about 13% of cases, "father" is "stepfather."

[c] Economic status is measured by the child's eligibility for subsidized meals in school. A "poverty" indicator is derived from school-record information signifying whether the child is eligible for subsidized meals at school (breakfast and/or lunch). Children were eligible for free or reduced-price meals (breakfast and lunch) based on family income and size. On July 1, 1983 (the middle of the study period being considered here), a family of four with a yearly income of $12,870 was eligible for full subsidy; one with an income of $18,315 was eligible for partial subsidy. These income figures are revised annually. The measure here is "1," indicating "no subsidy," and "0," indicating some subsidy.

[d] This information was derived from interviews with parents in the summers before the first and second years of school.

The patterns of gain associated with father presence in the family (last two rows of table 1) need to be considered against this backdrop of seasonal effects. We see that in winters there was virtually no difference in children's progress according to whether a father is present in the family. White children in father-absent families did 1 to 2 points better than those whose fathers are present; African-American children did 1 point better in winter if the father is present. In summers, however, father presence makes a

difference: about 6 to 8 points for whites and about 4 points for African-Americans. The patterns in table 1, then, suggest strongly that father presence is helpful in summers, but not winters.

This is only part of the story, however. We have already seen that better-off children gained more in summer than other children, whether we measure economic status by meal subsidy or parent educational level. Importantly, the seasonal contrasts for father presence or absence resemble those seen for both measures of economic resources. And we know that father absence is more common at lower economic levels. Hence, to isolate effects linked only to father presence requires that we take family economic status and father presence into account simultaneously.

Table 2 summarizes three repeated measures analyses of variance that examine differences in the seasonal gains children made in math scores on the CAT. The top panel summarizes findings when only father presence or absence is used as a design factor. As we would expect from the pattern of means shown in table 1, the anova shows that father presence in the family is significantly associated with children's making greater gains in summer but not in winter. Furthermore, for the entire period of 24 months, there is a highly significant difference favoring children in father-present homes (over 7 points for whites and 9 points for African-Americans in table 1).

Table 2. SUMMARY OF REPEATED MEASURES ANALYSES OF VARIANCE: EFFECTS OF FATHER PRESENCE/ABSENCE AND ECONOMIC RESOURCES ON CHILDREN'S GAINS IN CAT MATH ACHIEVEMENT, YEARS 1 AND 2 OF ELEMENTARY SCHOOL.

Design Factors in Repeated Measures Analyses	Significance Levels of Effects				
	WINTER 1	SUMMER 1	WINTER 2	SUMMER 2	Total Period 24 MONTHS
ANALYSIS I (Father Presence 0, 1)					
Father Presence (0, 1)	.851	.080	.867	.028*	.000*
ANALYSIS II (Father Presence 0, 1; Meal Subsidy 0, 1)					
Father presence (0, 1)	.565	.897	.953	.128	.087
Meal Subsidy (0, 1)	.621	.000*	.983	.191	.000*
Father Presence x Subsidy	.485	.448	.798	.580	.887
ANALYSIS III (Father Presence 0, 1; Meal Subsidy 0, 1; Parent Education Level 0, 1, 2)					
Father Presence	.293	.547	.817	.104	.263
Meal Subsidy	.811	.004*	.714	.712	.001*
Parent Education	.003*	.069	.159	.083	.661
Father Presence x Subsidy	.543	.440	.442	.334	.828
Father Presence x Parent Education	.272	.849	.410	.363	.542
Subsidy x Parent Education	.009*	.066	.162	.401	.311
Father Presence x Subsidy x Parent Education	.692	.581	.536	.173	.115

*p<.05

The next step is to take into account the family's economic status as well as father presence (middle panel, table 2). The picture now looks much different. Effects of father presence are not significant in either summer, and only borderline (p=.09) in the 24-month analysis. Effects of the family's economic standing, though, are highly significant in the first summer and in the 24-month period as well. Clearly, gains children made in summer are attributable more to economic status than to family type when both father presence and economic status are considered. Because families with fathers present are usually better off, the "economic" advantage is disguised as an effect of family type when only father presence is taken into account --it is the father's economic shadow that counts. The meal subsidy indicator is a dichotomous measure of whether the family is classified by Federal guidelines as "in poverty" or not. Another measure of family socioeconomic status is the educational level of parents (a high school drop-out (scored zero), a

high school graduate (scored one), or some post-secondary education (scored two)). When both meal subsidy and parent education are used as design factors, the family's economic standing is gauged even more accurately. With the two economic indicators in the design, there are no significant effects of father presence in any season or over the 24-month period. The seasonal pattern seen earlier for meal subsidy is reproduced in this 3-factor analysis, however, and a number of significant effects linked to parent educational level appear in addition. In both summers there are borderline effects of parent education level (p=.07 and .08).

Father presence does not accentuate effects of economic resources -- none of the interactions involving father presence in table 2 is significant. Father presence by itself might not be powerful enough to help children do better because of greater economic resources, but it could add something, for example, role modeling or "an extra pair of hands." If so, then there might be interaction effects. In table 2, however, none of the interactions is significant. As an additional precaution, analyses were run separately for the African-American and white subsamples, since father effects could differ by ethnicity. Again, though, only effects of economic status appear, and the pattern is much the same for the two ethnic groups.

DISCUSSION: It is important to emphasize that the outcome being examined is "gains." Children start school with different talents and skill levels. The question here is: After children began full-time school, does having a father in the home help children do better in math? In this kind of design, each child serves as his/her own control. Furthermore, these analyses are based on data for a large random sample of Baltimore school children, about half of whom are African-American and half of whom are white. In this sample, about 70% of the white children and about 44% of African-Americans reside in father-present homes.

A comprehensive review of the extensive research on how father presence in families affects children's schooling is beyond the scope of this paper, but it is often speculated that father presence is especially critical for children's math performance (Lynn, 1974) -- the outcome examined here. Also, since more African-American families than white families are female-headed, father absence is cited as a reason for deficits in school performance of African-American children (McLanahan, 1983).

It seems likely that if family structure has effects, its effects would be greatest for children at the point of school entry. Children in the first two grades are still strongly attached to families, and their cognitive growth is much more rapid than it is later on (Jencks & Mayer, 1988). For these reasons, if father presence does affect children's school achievement in math, the data set used here should reveal such effects. And "father" effects do appear before socioeconomic status is controlled. But in these data, with two measures of family economic status and other variables controlled via the repeated measures Anova approach, the "father" effects wash out. The seasonal nature of "father" effects is in itself illuminating. It is hard to imagine how effects of father presence that are mediated by role modeling or other psychological processes could be intermittent. If fathers' role modeling or other psychological attributes affected children's school performance, these influences should be apparent all year round. But children in father-absent homes do about the same as those in father-present homes in winter, and in summer gain less, in much the same patterns as children of low economic standing. Furthermore, the lack of interaction effects between father presence and the socioeconomic variables suggests that father presence, which is more likely in higher status families, does not enhance the economic advantage.

In closing, a word is needed about policy implications. There is widespread concern about shortfalls in school achievement of minority children, particularly in math, because math skills are involved in many high-level jobs. Often, father absence in African-American families is seen as one factor in explaining these shortfalls. Our analysis suggests that economic status is the key, not father presence. A father's presence helps mainly because it is associated with a higher level of economic resources. Summers are times when poor children lose ground because effects of children's economic status are most keenly felt when the resources provided by the school are withdrawn. Improving family economic status is an extraordinarily difficult undertaking, perhaps impossible in many cases. Providing school in summer is also difficult and expensive, but offers a more attainable goal. This analysis, and others like it, point to summer school as an important policy option to help disadvantaged children.

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The Effects of Socialization and Stimulation in the Home on Children's Adapters and Cognitive Development in Head Start *James Snyder*

Child development is influenced by multiple agents in multiple settings, each of which makes a unique contribution to socialization. Recent efforts have focused on understanding how the developmental effects generated in one context are related to those generated in another context, and the processes that mediate this cross-context relationship (Bronfenbrenner & Crouter, 1983).

The goals of this study are to examine how preschool-aged children's experiences in the family setting influence their early peer relationships and cognitive development in Head Start, and to identify mechanisms by which this influence is mediated. Early socialization occurs in two stages. In the first stage, parents teach children basic social, instrumental, and self-regulatory skills. In the second stage, children form relationships with peers and teachers outside of the home setting, providing opportunities to elaborate and extend the basic skills and competencies engendered in the home. This leads to a basic question: What is the linkage between socialization in family and peer/school contexts?

Understanding the linkage between family and peer contexts requires the specification of three basic elements: the critical socialization processes occurring in each context and the developmental "products" linking those two contexts. The model must also specify the direction of influence between these elements. The nature of the elements and the directionality of effects specified in the model will depend on the point in development under consideration. The focus of this research is on 4- to 5-year-old children who are making the transition from primarily family care to their first systematic experience with peers in Head Start. Although the linkage between parent-child and child-peer and child-teacher relationships is typically reciprocal (Parke et al., 1988), a reasonable assumption in the model being developed for children at this transition point is that the causal direction flows from family to school settings

In the models being tested, the contribution of the family to children's adaptation and learning in Head Start will be assessed in terms of peer relationships and cognitive development. Two relatively orthogonal indicators of poor peer relationships -- peer rejection and neglect -- have sufficient predictive validity and temporal stability to serve as dependent variables. Both predict subsequent adjustment problems and are relatively stable over time (Coie & Dodge, 1983; Rubin & Mills, 1988). Two aspects of the parent-child relationship are hypothesized to influence children's peer relationships and cognitive development in Head Start. The first is the amount of active engagement in reciprocal, modulated play and conversation, stimulation, and positive affective displays (MacDonald, 1987; Parke et al., 1988). The second facet of the parent-child relationship is discipline, or teaching of emotional and behavioral self-regulation. Frequent conflict and the use of parental coercion rather than reasoning and explanation in response to children's misbehavior are associated with low social and cognitive competence, and with peer rejection (Parke et al., 1988).
The family's social and economic context also influences parental discipline and involvement. Parental stress, inadequate social support, single parenting, and poverty disrupt effective parenting (Patterson, 1982). The notion to be tested here is that the impact of family context on child development is indirect: its effects are mediated through parent-child disciplinary exchanges and involvement.

The third requirement for the model entails specifying the mechanisms by which socialization occurring in the family setting affects child development in Head Start. It is hypothesized that the family's effect on the child's behavior in Head Start is indirect: social and instrumental skills shaped in the family are carried over into the Head Start setting to influence the quality of peer relationships and the rate of cognitive development. More specifically, two products of child socialization in the family -- social aggression and instrumental inhibition -- are hypothesized to increase the risk for poor peer relationships (Patterson & Bank, in press) and to interfere with optimal cognitive development.

In this study, four theoretical models predicting peer relationships and cognitive development in Head Start are tested. The first two models assert that poor parental discipline, as mediated by child social aggression, will account for significant variance in peer rejection and cognitive development. The next two models assert that low parental involvement, as mediated by instrumental inhibition, will account for significant variance in peer neglect and cognitive development. The models also predict that family disadvantage will be negatively associated with effective discipline and parental involvement with the child.

METHOD: Seventy 4-year-old male and female African-American children and their families participated in the study. The families were relatively disadvantaged, with a mean income of less than $10,000 and an average of three children per family. Seventy-five percent were single parents.

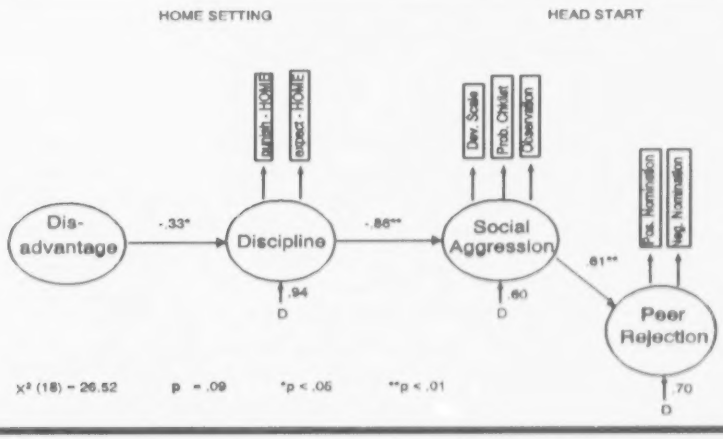
The following measures were used to define the various constructs in the hypothesized models. During the summer prior to enrollment in Head Start, parental discipline and involvement were assessed using a modified version of the HOME Inventory (Caldwell et al., 1984) after a home visit by the Head Start teacher. Information on family income, the number of children in the family, marital status, maternal education, crime rates in the neighborhood of residence, and parent self-reported emotional problems were combined to form a family disadvantage index. During the late fall of the Head Start year, a number of measures were collected. Children's social and instrumental behavior were assessed using a teacher behavior problem checklist (Kohn et al., 1972), behavioral observations in the classroom (Snyder, 1988), the Pictorial Scale of Perceived Competence and Social Acceptance (Harter et al., 1984), and a multidimensional developmental scale completed by the teachers (Snyder, 1988). Peer sociometric ratings (Asher et al., 1979) were collected on each child and transformed using standard procedures to define the degree to which each child was rejected and neglected by peers. Cognitive development was assessed using a multidimensional scale completed by teachers and by behavioral observations in the classroom (Snyder, 1988).

RESULTS: Two preliminary analyses were completed to assess the homogeneity of the measures across gender and age. No reliable differences for age and gender were found, with one exception. Males were rated by teachers as more socially aggressive,

but gender differences in social aggression based on direct observation of child behavior were not significant. Because of the relative lack of differences due to gender and age, the models were tested collapsing across all subjects.

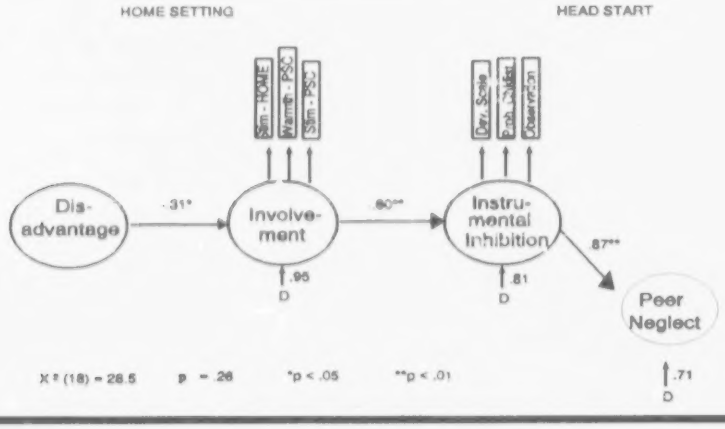
The first model hypothesized that good parental discipline would be negatively associated with social aggression in the peer setting, which, in turn, would be positively associated with peer rejection. Parental stress was postulated to be negatively related to discipline in the home setting. The model was tested using EQS (Bentler, 1989). As shown in figure 1, the data fit the model: Chi^2 (18) = 26.52, p=.09. Each of the paths hypothesized in the model (shown in their standardized form) were significant. The model accounted for 14% of the variance in discipline, 64% of the variance in aggression, and 51% of the variance in peer rejection. The fit of the hypothesized model was compared to that of another plausible model, including a direct path from disadvantage to aggression and to peer rejection. These latter models did not fit the data.

Figure 1.



The second model hypothesized that the level of positive maternal involvement with the child in the home would be inversely associated with instrumental inhibition in the peer setting, and that instrumental inhibition would be associated with peer neglect. It also hypothesized that maternal stress would be inversely related to maternal involvement. As shown in figure 2, the data fit the hypothesized model: Chi^2 (19) = 28.5, p= .26. Each of the paths, shown as standardized coefficients, was significant. The model accounted for 9% of the variance in positive involvement, 35% of the variance in child social inhibition in the peer setting, and 50% of the variance in peer neglect. The fit of the data to models, including direct paths from disadvantage to instrumental inhibition or to peer neglect in addition to the indirect paths, were not consistent with the data.

Figure 2.



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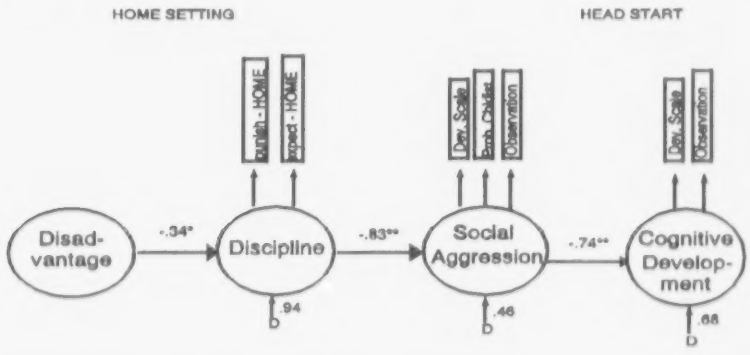
The third model (see figure 3) hypothesized that good parental discipline would be inversely associated with social aggression in Head Start, and that social aggression would be inversely related to cognitive development. The data did not fit the model: Chi^2 (24) = 52.76, $p<.001$, even though all the paths were significant and the model accounted for sizable variance in social aggression and cognitive development.

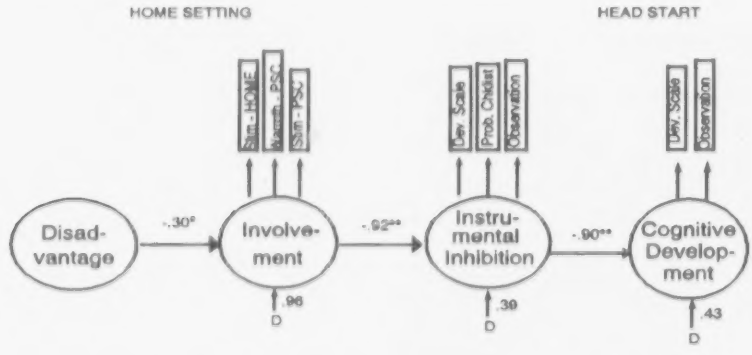
Figure 3.



X^2 (18) = 52.76 p < .001 *p < .05 **p < .01

The fourth model hypothesized that parental involvement would be negatively associated with instrumental inhibition, and that instrumental inhibition would be negatively related to cognitive development. The fit of the data to the model was marginal: Chi^2 = 50.01, p = .03. All of the paths were significant, and the model accounted for 81% of the variance in cognitive development, 85% of the variance in instrumental inhibition, and 8% of the variance in parental involvement.

Figure 4.



X^2 (33) = 50.01 p < .03 *p < .05 **p < .01

DISCUSSION: Poor parental discipline is associated with aggressive child behavior and peer rejection. Non-compliance and the verbal and physical aggression resulting from a failure to teach behavioral self-regulation in the home appears to generalize to the school setting. One by-product of this lack of control is increased risk for peer rejection that may further isolate the child from normative peer socialization experiences and amplify the child's aggressive behavior. Poor parental discipline and ensuing child aggression is less clearly related to cognitive development. Low parental involvement is associated with instrumental inhibition, and via that inhibition to peer neglect and reduced cognitive competence. The lack of parental stimulation, interest, and attention toward children may leave those children ill equipped to effectively engage peers and use the learning environment provided by Head Start.

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The fit of the models to the data also provides tentative support for the notion that the impact of family disadvantage on child social and cognitive competence is mediated by daily parent-child interaction rather than involving a direct effect. Disadvantage may serve to disrupt family socialization practices requisite to the development of behavioral self-control and an adaptive repertoire of social and instrumental skills.

What are the implications of these data for Head Start? First, increased attention should be paid to children's socioemotional as well as cognitive development. Children's ability to relate to peers, to negotiate a new routine and set of rules outside of the home, and their readiness to use learning opportunities in the classroom are critically linked to self-regulation and instrumental skills learned in the family. Second, families are critical. The data suggest that systematic efforts to alter the family environment provide an important vehicle to enhance the size and consistency of the programmatic effects of Head Start. Enhancement of the childrearing tactics of Head Start parents is one viable means of accomplishing these goals. Such programming may be particularly important for those families and children experiencing the greatest disadvantage. Attention to parenting skills may also increase the durability of the effects of Head Start in that parents play a continuing role in their children's development after Head Start. Third, it would also be useful to directly remediate family disadvantage by providing increased educational and economic opportunities and resources. Such efforts may promote child development by decreasing the disruptive effects of disadvantage on parenting practices. However, such actions may not be absolutely necessary to effect change. We may be able to effect change by focusing directly on the enhancement of parenting skills. Though challenging, it is possible to be an effective parent in the face of disadvantage, and we need to increase our efforts to help parents learn the skills needed to meet that challenge.

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Discussion *Joan Lombardi*

I am going to respond as a practitioner to four or five points. The first one is about fathers. I was struck that single-parent families often have men in the homes, and that somehow that has to be accounted for in the research. I was particularly happy to hear Feshbach talk about the need for more research about fathers' empathy. It would be interesting to know the effect of men in the home, whether fathers or not, on mothers' empathy. Also, what is their effect on mother's discipline practices? I think this has to be looked at. Although there might not have been effects found when looking at mothers with other adults in the home, I think it is an area that we have to continue to focus on as we look at socioemotional development. As was pointed out, it is really the socioemotional antecedents of cognitive development that are so important. In my work on school readiness, I have been doing some focus groups with teachers on "children ready for school." Invariably, they talk about socioemotional development as the key.

My second comment has to do with training. I am struck as a practitioner by how much you have to tell us about training, and our parent education programs. We need help in translating what you are saying to both our staff and our parents. For example, it would be helpful if staff had a better understanding of exactly what empathy is, and how we can help parents understand the difference between empathy and permissiveness, which they often confuse. I thought it was an excellent point, because parents perceive empathy as permissiveness. If researchers could help us map out the effects of discipline on behavior, in terms that we can translate to parents, it would be quite helpful.

Third, is the importance of family support. Head Start's critical concept has been its social service parent involvement component, what we now call family support. Family support is really empathy for parents, which is an antecedent of empathy for children. I think there is a policy implication for family support.

My fourth thought is about culture. How we define empathy varies across cultures. How we define accepted discipline varies across culture. The fit between the home culture and the culture of the program -- and we have a better fit in Head Start than we have in some other programs -- would have an effect.

I want to close with some policy implications. Summer programs were mentioned. We see a need for the extension of nine-month programs to full-year, so that you are not really adding a different program in the middle, you are extending the program. That has been a particularly difficult issue in Head Start because, as our dollars got tighter, the hours shrunk, so that September to June programs became October to May. This is an important issue to address.

AUDIENCE DISCUSSION

Three main themes of audience discussion were: 1) the possible advantages of full-year programs for the most disadvantaged youngsters; 2) the importance of parental empathy; and 3) the effect of parental involvement.

One audience member pointed out that those children who come from homes where the income level is below the poverty line, where one finds a variety of social and emotional problems, are most likely to lose any advantages gained in an intervention program when they are out of the program over the summer. Perhaps they do not show gains because this population is not evaluated separately. Since they do not show gains it is assumed that nothing is happening, but an important concern should be that they do not lose what gains they might have made during the school year. This audience member felt that when resources are scarce, this is the group to concentrate on rather than consider extending the school year for all children. Some of the best efforts of the past failed because they attempted to provide blanket programs in which the better off children continued to accelerate and the gap widened. Lombardi answered that she was not advocating for universal summer school, but was primarily concerned as a person who works in Head Start. Other audience members added that if summer programs are provided, the curricula and goals of the programs must be considered carefully. Some felt that the children would not gain anything from a program that was not fun. Since structured summer programs do not seem to provide the desired outcomes, it is important to know what children are doing over the summer. Maybe the most important factor is interaction with peers, and this questioner wanted to know if there were data on peer interaction over the summer. Although data were available on how the children spent their time over the summer, Entwisle indicated that she was unable to gain much insight from looking at that. Another comment was that perhaps the gains found in the higher economic group reflected reinforcement they were getting at home for their summer activities.

Comments were made regarding empathy being a highly complex integrated response. It is not equivalent to permissiveness or over-permissiveness. The findings presented have implications for staff training as well as for parents. Several agreed that greater effects would be found if staff were given empathy training. One person speculated that one of the reasons that the training for elementary school children is successful if because perspective taking is taught.

An audience member suggested that the connection between maternal involvement and a child's cognitive development would be enhanced by looking at some components of that involvement in terms of Siegel's "distancing behaviors" or Feuerstein's "transcendence." Snyder agreed, adding that positive involvement is global and might include many components, including those similar to what more advantaged children receive at home over the summer. An additional comment was made about father presence having a positive effect. It was felt that this was mediated by income and not by modeling processes -- families with fathers have more income.

Panel 123 INTERVENTIONS THAT ENHANCE EMERGENT LITERACY IN CHILDREN

Chair: **Diane Novak**; *Discussant:* **Erika Hoff-Ginsberg**

Shared Picture-Book Reading in the Home: Language Enrichment Project *Barbara D. DeBaryshe, Graciela DeAngelis, Alby Johnson, Karen Maas, Janeen P. Witty, Holly Holt, Paula Harvell*

I would like to describe to you the procedures and the initial results of a home-based language enrichment program. There is a considerable amount of research to suggest that oral language skills are one of the most important building blocks for early school success (e.g., Edmiaston, 1984; Feagans & Farran, 1982; Loban, 1963). Joint adult-child story reading sessions provide a uniquely rich and motivating setting for promoting the acquisition of language and preliteracy skills (e.g., Ninio, 1983; Pelligrini et al., 1990; Share et al, 1983; Wells, 1985; Whitehurst et al., 1988). If we are going to design intervention programs around storybook reading activities, then it becomes necessary to understand the mechanisms through which shared book reading brings about positive change.

The purpose of our program was to increase both the frequency and the quality of parent-child home reading sessions. What do we mean by a high-quality reading session? We mean one that is highly stimulating and provides many learning gains for the child. Our basic belief is that children should not passively attend to a story that is read to them. A more optimal reading session would involve active exchanges between the parent and child in the parent strikes a balance between providing information to the child, on the one hand, and eliciting information from the child on the other.

METHOD: The subjects in our study were 2- to 4-year-old children and their parents. Sixty-four children started the program, and 50 children completed it. Most of the children are enrolled in Head Start; a small number were enrolled in a child care center located in a public housing project. The sample predominantly consisted of African-American, single-parent families headed by a woman in her late 20s. About half of the mothers were working and had some vocational or community college training. The median family income was $10,000 to $15,000, which went to support a family of four.

The program was of seven weeks' duration, including one week of baseline and six weeks of intervention. Parents received two training sessions spaced three weeks apart. In the lessons, parents were taught a repertoire of increasingly challenging teaching strategies to use when reading aloud. Parents were taught to select strategies that were appropriate for their child's age and current knowledge. As children's skills increased, parents switched to more challenging strategies. These target strategies fell into two different groups: strategies for prompting or questioning their child, and strategies for providing feedback on their child's conversation. The target prompting strategies were: completion prompts, function/attribute questions, open-ended questions, and high-level distancing questions. What questions are prompts that cue the child to provide a label, for example, "What is that under the tree?" Completion prompts are cues for the child to help "read" the story. The parent begins the sentence, then pauses and waits for the child to complete it. An example of this would be the parent saying, "Curious George is a monkey. He lives in ..." Function/attribute questions cue the child to provide an action or descriptive term rather than a label, for example, "What is Snoopy doing?" A more challenging prompt, because it is less structured, is the open-ended prompt. Here the parent cues the child to talk about the story, but the child is not given a specific topic to discuss. Examples include directives like, "Tell me about this part of the story."

Parents of 2- and 3-year-old children were asked to use these four types of prompts. Parents of the 4-year-olds also included the most complex type of question, called distancing questions, to use Irv Sigel's terminology. Distancing questions require the child to go beyond the information contained in the illustrations or in the words of the story. Examples include how and why prompts (e.g., "How is he going to find his way home?"); future-oriented questions (e.g., "What will happen next?"); comparison questions, in which the child is asked to discuss similarities and differences (e.g., "What happened to you the first time you got on a bike like this boy is doing?"); and definitional questions (e.g., "What does spicy mean?").

The second focus of the training involved responsive feedback strategies. Feedback strategies providing children with information concerning the correctness of their speech. Encouraging feedback also provides motivation for continued participation, and helps structure the session towards a more back-and-forth conversational pattern. Target strategies included praise plus repetition of the child, or praise plus expansion. Corrective feedback was also used as needed, for example, if the child mislabeled an object. With older children, for whom simple repetition and close expansion are no longer developmentally appropriate, parents were instructed to provide more elaborate continuations of their child's conversational topics.

Our experimental design involved 11 participating classrooms randomly assigned to one of three conditions. Training families participated in two parent-training sessions and read at home on a daily basis for seven weeks. Reading parents also read at home for seven weeks, but did not receive any parent training. Control parents participated only in the pre- and post-test assessments. It was assumed that by asking parents to read each day we would be increasing the frequency of reading in both the training and reading-only groups. Thus, the three-group design would let us separate out the effects of increasing reading frequency from improving reading quality.

All families participated in a pre-test assessment. This included two questionnaires and a standardized language test battery. The first questionnaire, the Family Survey, covered demographics and home literacy practices, such as how often the parent reads for pleasure and how often the parent reads to the child. The second questionnaire, the Efficacy Belief Survey, addressed parental beliefs about reading aloud with young children. Children's pre-test language skills were assessed on the Peabody Picture Vocabulary Test (PPVT), the Expressive One-Word Picture Vocabulary Test (EOW) and the Verbal Expression subscale of the ITPA. These three tests measure receptive and expressive vocabulary and the semantic complexity of children's spontaneous descriptive speech.

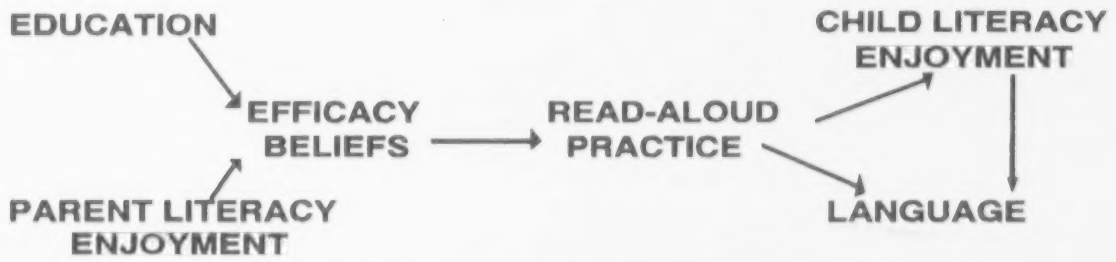
During the seven weeks of intervention, the training and reading-only groups made weekly audiotapes of their home reading sessions. These tapes are coded for categories of both maternal and child speech. At the end of the intervention, children were post-tested on alternate forms of the language tests used in the pre-test battery.

RESULTS: Our first research goal was to describe these children's home literacy environments. What types of experiences with books have these children had at home, and how might these experiences relate to their language skills as measured at the start of the study? Contrary to our initial expectations, these children were read to on a regular basis. By parental report, the children were read to slightly more than four times per week. However, our Head Start parents did provide their children with fewer literacy experiences than we found in middle-class families in our other studies. For example, our Head Start parents read less than half as often as the more advantaged parents, (4 vs. 10 sessions per week), owned many fewer children's books (25 vs. 94 books), and started to read to their children at a much later age (16 vs. 6 months). This suggests that our Head Start children have a history of less frequent exposure to shared book reading.

Figure 1 shows our conceptual model of how the home literacy environment shapes children's attitudes towards reading and affects children's emerging oral language skills. Parents who have higher levels of educational attainment and who themselves enjoy

and frequently model recreational reading will tend to have higher literacy efficacy beliefs. By efficacy beliefs I mean that these parents feel that they are able to have a significant impact on their child's language development and school readiness, and that reading aloud is an important way to achieve these goals. Parents with high efficacy beliefs are more likely to engage in many reading activities with their child. Here, we measured this with things such as how often the parent reads to the child, how many books they own, the age at which they started reading, and whether they take the child to the library. Finally, home read-aloud practices should have a positive impact on children's interest in and enjoyment of books. Home reading practices and child interest, in turn, should be related to stronger oral language skills. We measured these variables using the pre-test surveys and the pre-test language battery. This model worked extremely well when applied to our data. Using multiple regression procedures, these four variables explained 55% of the variance in children's literacy enjoyment. And these five variables together explained 24% of the variance in children's pre-test language scores. Thus, the parents' beliefs and home reading practices appear to have a significant impact on children's pro-literacy attitudes and developing language skills.

Figure 1. CONCEPTUAL MODEL OF HOME LITERACY EFFECTS



Our second major research question concerned the effect of the program on actual home reading interactions. Unfortunately, these data are not available for today's presentation. The tapes will be central to our analysis of the program's effectiveness. We will use these tapes to see how well the training group parents actually implemented the target reading strategies. We will also look to see whether treatment children show positive changes in terms of the quality of their participation in the reading session as measured by the frequency and spontaneity of their speech, vocabulary diversity, and average utterance length.

Our third research question is probably the one that is of most interest to you today: Did the program have an effect on children's language test scores? At this point in time the answer appears to be no, it did not. On all the three tests (i.e., total gains for the parent group, reading-only group, and controls), children in all groups showed significant or marginally significant gains. For this, I think we can credit the overall quality of our participating Head Start program. There was no indication, however, that the parent-training or reading group children showed systematically larger gains than the control children.

DISCUSSION: Is the program a failure? I would urge you not to make this conclusion prematurely. First, the number of successful completers in the training group is still quite low. We are planning to fill this cell by training more families in the fall. Second, there is evidence that within the treatment group, the degree of individual improvement is related to parental compliance with the program. Controlling for pre-test scores, the frequency of reading during the study is correlated .6 with PPVT scores and .4 with One-Word scores. Thus, training parents who read more often had children who made relatively larger gains. Fourth, we have not yet looked at the audiotape data. We may find that the program has little effect on test scores, but has a large impact on the complexity and maturity of children's in-session conversation skills. Finally, the issue of the subject attrition must be addressed. Although we had expected some parents not to complete the program, the drop-out rates were distressingly high, and were limited almost exclusively to training group parents. Less than half of the parents originally recruited to the training group actually finished the program. Clearly, many parents found the program unrewarding or inconvenient to follow. The families who dropped out from the program differed from the completers in several ways. These families were younger (both mothers and children) and lower income. Most interesting to us was the fact that the drop-out parents reported their children to be less interested in reading together. Thus, the program appears to be less appealing to parents who have not managed already to help instill an interest in books in their children. This suggests that we need to give more thought in the future to retaining all families and understanding why some children have not developed an enjoyment of what for many families is their most pleasant shared activity.

In summary, the descriptive data collected for this study may make an important contribution to early education practices by adding to our knowledge of naturally occurring variations in family literacy practices in low-income homes and how these relate to

individual differences in oral language skills. Results for the treatment outcome data suggest that special attention needs to be paid to keeping families in these programs. Furthermore, these programs may need to be longer, more intensive, or more supportive than the intervention model followed here.

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Intervening to Enhance Emergent Literacy in Children of Low-Income Parents: Day Care and Home

Grover J. Whitehurst, Janet E. Fischel, Barbara DeBaryshe, David Arnold, Meagan Smith, Jeffrey Epstein

A leading educational researcher recently noted that "the real tragedy in American education is that so few children discover the fascination of reading" (Anderson, 1986, p. ix). This serious problem is magnified substantially among children who are raised in poverty. These children suffer from disproportionately high rates of illiteracy and other forms of reading problems (e.g., Alexander & Entwisle; 1988; Raz & Bryant, 1990). Reading difficulties among this group are tied to oral language deficiencies (e.g., Edmaston, 1984; Mason, Sinha, Kerr, & McCormick, this conference), which are in turn a function of variables in the home environment that precede the child's entry into school (e.g., Share, Jorn, MacLean, Matthews, & Waterman, 1983). It follows that efforts to improve reading among children of low-income families should begin before formal schooling because the foundations of literacy are laid early in the preschool period. We believe that appropriate prereading interventions can have significant effects on children of low-income parents, and that the cost-benefit ratio for this effort can be quite favorable.

I will describe a prereading intervention that uses day care facilities or day care teachers as a delivery mechanism. We have chosen this venue for intervention because we believe that day care, Head Start, and other preschool programs have great potential to affect the development of basic skills in young children. With limited exceptions (e.g., McCartney, Scarr, Phillips, & Grajek, 1985), debate and research on day care in this country has tended to treat it as if it were a homogeneous experience. It is not. Day care facilities vary dramatically in what they provide young children. In developing an intervention that can be used in day care programs we hope to demonstrate how the varying nature of preschool educational experience is important to its effects. In turn, we hope that such research will focus social policy on the issue of how to improve day care practice, rather than the ill-framed question of whether it is "good" or "bad."

Before I elaborate on our present research on preliteracy interventions for low-income children in day care, I need to give you some background on the nature and origin of our shared book reading intervention, which we call Dialogic Reading. In typical storybook reading with 2 and 3-year-old children, an adult reads or tells the story, and the child listens (Whitehurst, Falco, Lonigan, Fischel, DeBaryshe, Valdez-Menchaca, & Caulfield, 1988). Dialogic reading reverses the typical pattern of storybook reading, so that the child gradually becomes the teller of the story depicted in a picture book, while the adult becomes an active listener prompting, rewarding, and expanding the child's efforts to talk. The program is presented in two segments. During the first assignment, the adult is instructed to get the child to take turns "telling" about pages in a favorite book, using "who" and "what" questions to get the child to talk. For instance, the adult might point to a picture of a character in the story and say, "Who's that?" If the child can answer, the adult is instructed to follow up with an action or attribute question, such as, "What's Sally doing?" When the child doesn't know the answer to a question, the adult is told to model a good answer and get the child to repeat it. During the second assignment, the adult is instructed to shift from specific questions to open-ended questions. For instance, the adult would say, "It's your turn. You tell me about this page. What's going on here?" and then follow child responses with expansions. So if the child said, "Sally's jumping," the mother might add, "That's right. Sally's jumping rope." In summary, the dialogic reading approach does at least three things: it makes the child the storyteller, giving opportunities to practice language; it provides informative feedback contingent on the child's language; and it shifts the standards for the child as the child learns, constantly encouraging and enticing the child to do just a bit more than he or she normally would.

Our original study on the effects of dialogic reading was published in Developmental Psychology in 1988 (Whitehurst et al., 1988). We studied middle- to upper-SES mothers and their 2-year-olds. The intervention group of mothers received two training sessions, each about half an hour in duration, and read to their children at home for two weeks following each training session. The control group of mothers received no training, but read to their children as frequently as the intervention mothers. Audiotapes of at-home reading revealed that experimental mothers did employ the dialogic reading techniques, while control mothers mostly read the text. The program produced significant increases in child MLU, and a 6- to 8.5-month gain in expressive language ability. These

effects maintained at a 9-month follow-up assessment. These are very large effects in children who were already functioning at an advanced level prior to the intervention. There results encouraged us to explore the effectiveness of the intervention with less advantaged children.

Our next study extended dialogic reading techniques to children from low income families attending public day care in Mexico. The results of this work are currently under review for publication and are available in preprint form (Valdez-Menchaca & Whitehurst, 1991). Mexico faces critical problems in educating its population, with an average level of educational attainment of about third grade. Large numbers of Mexican children drop out of first and second grade because of poor entry skills. Day care in Mexico expanded 10-fold in the last decade and offers a context in which well-designed programs might have a significant impact on literacy and educational achievement. Subjects in the study were 2-year-olds attending a public day care center in Tepic, Mexico, whose families had a mean income of less than $2,500 per year. All children were normal on developmental screening. However, their linguistic ability was low as measured by standardized tests of vocabulary; for example, their mean IQ score on the Expressive One-Word Picture Vocabulary Test (Gardner, 1981) was 76.5. Children were matched by language test scores, and then assigned randomly to an experimental or control group. The intervention program consisted of 10-minute reading sessions with one child and a teacher every weekday for six weeks, which is approximately 5 total hours of intervention. Children in the control group engaged in one-on-one activities with the teacher, doing things like building with blocks and doing puzzles.

The effects of the dialogic reading intervention were first assessed through measures of children's spontaneous verbalizations while looking at a book with an unfamiliar female adult who asked specific and open-ended questions during a reading session. This assistant was unaware of the children's experimental status. The intervention group produced significantly more utterances, syntactically complex sentences, answers, topic continuations, and topic initiations, and had more semantic diversity, noun diversity, verb diversity, and greater MLUs. These effects include the domains of syntax, semantics, and pragmatics, and are perhaps the most general and extensive ever to have been demonstrated for a language intervention.

We also used standardized tests to evaluate the impact of dialogic reading. Post-test assessments of children's language were conducted by an examiner who was blind to the children's experimental status. The initial post-test utilized the Peabody Picture Vocabulary Test Revised (Dunn & Dunn, 1981), a test of receptive language, and the verbal expression subscale of the Illinois Test of Psycholinguistic Abilities (Kirk, McCarthy, & Kirk, 1968), a test of expressive language. Results indicate that the experimental group was ahead by 7 LQ points on the Peabody, and 29 LQ points on the ITPA. Two months after the intervention, the Expressive One-Word Test was given. The experimental group was 8 IQ points ahead on this test. All of these differences are highly significant. The "teacher" in that study was an advanced doctoral student, and she met subjects one on one. This raises instructional and organizational issues. The instructional issue is the degree to which day care teachers can be trained to use dialogic reading, and what their motivation is to use it. The organizational issues include the freeing of teacher time for such a program. Dialogic reading requires frequent opportunities for a child to talk about a book with a responsive adult.

The next study attempted to deal with these issues, still targeting low-SES day care children. In this work, which is still in progress, we are using day care teachers as the readers, children are read to in small groups, not individually, and we changed the training procedure, to make it less expensive and more portable. The 53 subjects from this project on which we currently have data are mostly Black, and they were in government-subsidized day care in Suffolk County, NY. They averaged about 3 1/2 years old, which is older than the children in our prior studies of dialogic reading. Their language skills, however, were actually less advanced than our original sample of 2-year olds. The average one-word score was an 82 LQ, which corresponds to language development that is about 10 months behind chronological age. The children were assigned randomly to one of three groups: a school + home group in which the children were read to, using dialogic reading, by their teachers and their parents; a school-only group that was read to only by teachers; and a control group, which engaged in activities with teachers, such as building with Lincoln Logs and Tinkertoys. Group size for the school reading and control groups was no more than four children at a time. Recent research suggests that small groups may be an even more productive context than one-on-one reading for vocabulary acquisition (Morrow & Smith, 1990).

To make the training procedure more accessible and easier to replicate, we developed a videotape training method of teaching dialogic reading, modeled closely on our direct-training procedures (Whitehurst, Lonigan, & Arnold, 1990). The videotape contains the same two assignments that we have used previously, which are presented through animation as a set of rules and followed by taped vignettes of adult-child book reading. Teachers or parents are asked by the trainer showing the videotape to criticize the readers in the vignettes in terms of the rules of dialogic reading and to indicate what the adult reader should do in response to particular behaviors of the child. Following the videotape, the trainer engages in role play with the adult being trained, presenting various examples of "child" behavior and giving the adult feedback on her use of the dialogic reading rules. The whole training sequence takes about 30 minutes for Part 1, and 20 minutes for Part 2. In the present study, Part 1 and Part 2 training were separated by three weeks. Teachers were trained during the school day. Parents were trained at their child's day care center, typically at the end of the school day. Children were cared for by the day care staff while a number of parents watched the training video simultaneously and then engaged in one-on-one or two-on-one role play with the trainer. Parents were given three books at each assignment to be used at home during dialogic reading. These same books were a subset of the books used by the teachers during

dialogic reading. Parents and teachers were asked to keep a daily log of frequency of reading and the particular books that were used.

Four day care centers were involved. One of those centers was not compliant with the intervention. For example, they read only 1.6 times per week to each child, while the other centers averaged 3.7 times per week. Not surprisingly, there were no effects of the intervention in that center. For that reason we have separated that center from the aggregated data from the compliant centers. Looking at the compliant centers, you will see language improvement in line with the large gains of two previous studies I reported. Notice that the school + home group improved an average of 9 standard score points more than the control group on the One Word, and 15 points more than the controls on the Peabody. The differences on both of these tests are significant. The differences between the control and school conditions, and the differences between the school + home and the school-only conditions are not significant at present. However, we expect that these differences will become significant as we collect more data, because each difference approaches a standard deviation in size -- a very large effect.

We were encouraged to learn that day care teachers can function effectively as dialogic readers, that dialogic reading can work in a group setting, and that training can be effective with groups of teachers or groups of parents at one time. We need to grapple with motivational issues such as the poor compliance in reading frequency at one center. Our experience is that small-group reading requires a reorganization of staff time in most day care centers, that it is perceived by many teachers as harder work than their typical activities, and that it is unlikely to be sustained without the strong leadership of the center director. We plan to conduct further research to examine factors related to compliance and factors related to the fidelity of the intervention. Taken in aggregate, these studies demonstrate that the intervention can impact quite positively on children's language skills. Effect size, which is the mean difference between conditions divided by the standard deviation of the control group, averaged 1.1 on the One Word over the three studies I have described here. Effect size is a much more important measure of practical significance than the p level of a statistical test, because, as we all know, very small and practically trivial effects can be statistically significant given a large enough sample size. Cohen (1977), the statistician who has done the most to develop measures of effect size, defines a large effect size as .80, and points out that effect sizes rarely reach this level in psychology or education. We argue that the ability of a one-hour intervention in terms of training time and a five-hour intervention in terms of reading time to produce an effect size exceeding 1.00 across three different studies is evidence of a robust and important finding.

Shared storybook reading is not a magic potion. Academic failure is complex and multiply determined. However, with a complicated problem that cries out for any practical contribution, the study of reading interactions with children at the onset of language development seems as good a place as any for meaningful research and social policy initiatives.

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Emergent Literacy Intervention: Theory and Application *Jana M. Mason, Shobha Sinha, Bonnie M. Kerr, Christine E. McCormick*

Although one facet of a Head Start program is early childhood education, young children's literacy development has often not been included. Reviews of recent research, however, indicate that literacy support in the preschool years is associated with children's later reading competency. There is no longer a question, then, about whether to acquaint young children with reading and writing constructs before they go to first grade, but rather how to provide the support. In this report we suggest an effective and appropriate approach for fostering in young children an interest and knowledge about literacy.

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Stedman and Kaestle (1987) document that over 20 percent of the adult population, or more than 45 million people, have inadequate functional literacy skills. They have difficulty reading, for example, a six-word direction on a medicine bottle, a sentence about how often houses should be inspected for termites, airline and train schedules, a child's report card, a description of a blood donation program, a message about the price for a mail order. Why are literacy levels so low? One explanation arises from studies that have correlated social and cultural characteristics of families with school achievement of children. Share, Jorm, Maclean, Matthews, and Waterman (1983) found that families who had children with higher early reading achievement at school entry engaged in more literary activities, preferred educational non-commercial television viewing, had higher occupational status, and higher educational aspirations for their children. Iverson & Walberg (1982) reviewed 18 cross-national correlational studies of school-aged children and found that ability and achievement are linked to factors such as academic guidance, achievement, family intellectuality, work habits, language, and intellectual stimulation in the home. White (1982) also found that home atmosphere factors, such as reading materials in the home, family stability, aspirations of parents for their child, and the amount of cultural activities in which the family participates are good predictors of achievement. Overall, correlational studies indicate that a home atmosphere that supports children's emerging literacy is an essential aspect of later school achievement.

Rather than simply linking a family's social class and children's achievement in school, the more recent research indicates there are important family differences within culture and social class that affect children's literacy knowledge and development (Teale, 1987). This suggests, then, that Head Start teachers are ideally situated to help children and their families because they maintain close connections with parents and can help them provide adequate literacy support for their children, beginning at the right time, before children attend pubic school.

What should be the nature of literacy support for children in the preschool years? It has been known for many years that knowledge of letters, acquired in the early childhood years, is a significant predictor of later reading (Chall, 1983; Mason, 1984). More recent evidence, which was reviewed by Adams (1990), Ehri (1991), and Juel (1991), indicates that preschool children's ability to hear the sounds of letters in words also predicts later reading. The underlying reason is that recognition of printed words cannot be efficiently carried out until the child is able to use the alphabetic system of our language -- that is, the child who is able to identify and hear letter sounds, the phonemes, in words will be able to observe and use letter-sound patterns to identify and write words.

Realization that phonemic awareness is acquired gradually, beginning long before children enter first grade, has led to early interventions for children in which they learn to hear beginning and ending sounds of letters in words (e.g., rhyming verses and games for ending sounds and alphabet book activities for beginning sounds). Studies indicate that such opportunities foster phonological awareness and affect later reading skill (Cunningham, 1989; Lundberg, Frost, & Petersen, 1988; Bradley & Bryant, 1983). However, letter knowledge and phonological awareness are only part of the picture, because learning to read and write also requires knowledge about procedures for reading and writing, that is, concepts about print (Clay, 1979), and knowledge about how to understand and interpret the written language (Mason & Allen, 1986; Sulzby & Teale, 1991). Thus, important aspects of print concepts and written language also need to be acquired in the preschool years.

Recent work suggests that all of these dimensions of literacy may be fostered in children's early years through adult-child story talk, talk about the books, and book listening and discussions about stories (Dickinson & Snow, 1987; Mason, Dunning, Stewart, & Peterman, 1990). We refer to this interconnected construct as Language Understanding, an ability to interpret and analyze one's language, and to dissect and look at it objectively. For young children it is a new use for language, going beyond their first use of language for reference and communication, toward reasoning and rational thinking, and standing behind learning to read. So, reading to children, telling stories, talking to children about stories, and sharing books with children may be the initial way to introduce children to print and to the unfamiliar language which is used in stories.

We have found in previous research that an intervention that fosters language understanding can be provided to kindergarten and preschool children (MCormick & Mason, 1989). The intervention involves the use of little books for children to learn to read and so fosters interest in reading. Moreover, because the studies were carried out with impoverished families, we designed the intervention so that all materials were given to children for home use. With print materials sent home, we expected there could also be an effect on family support for literacy, because when parents see their child use books at home, they will be more likely to engage their young children in language and literacy-related talk at home. The young children would now experience literacy-related language talk at home and school, and would be less likely to have language competencies that are mismatched with the language prevailing in school. They would be less likely to be at a disadvantage in kindergarten and first grade in teacher-directed literacy-related discussions. They would be more able to focus on the relevant and critical aspects and characteristics of the school literacy tasks and their language competencies would fit the literacy-related talk and tasks that prevail in school.

METHOD: We designed a literacy-focused intervention for 4-year-old at-risk children -- children the school district determined would, without intervention, have difficulty in school (Mason, Kerr, Sinha, & McCormick, 1990). In this district, about 240 young children were designated by the schools as "at risk for academic failure." Most of the children were from families whose parents earned less than $15,000 a year, and about half were African-American. There were an equal number of boys and girls, none of the children were physically impaired, and only two or three were from families whose first language was not English. The intervention was provided to half of these children as an "add-on" design, that is, they received the regular program plus reading-related

activities. The regular program was an excellent half-day developmental program, called Early Start, involving a head teacher and one aide plus a helper who worked with 20-25 children in the morning and another group in the afternoon. So, each teacher group served as its own control, that is, either the morning or the afternoon group provided the regular program and the other group provided the reading-added intervention.

The study, which was carried out for the whole school year for children in the pre-kindergarten year, investigated whether a book-sharing intervention would make a significant improvement in children's literacy. Teachers were trained by the investigators, beginning with a group meeting in which a videotape of the way to carry out shared reading with small groups of children was presented and techniques for carrying out the intervention were explained. Teachers were taught to use a three-step process, reading to 4-6 children at a time, with each session lasting about 10-15 minutes. Each week, one new book is read in the following way:

Monday: Discuss with children the book topic while showing the cover page, pointing to and reading the title. Read the book to children, holding the book so that children can see the pictures, and encourage children to make comments, ask questions, and recite the text along with the teacher.

Wednesday: Reread the book several times until children can recite the text without help. Have children select other, already learned favorite books for shared reading. Place the new book with others in an easily accessible book area in the classroom.

Friday: Involve children in an activity that is related to the topic of the book and that engages children in acting out, drawing, or talking about the topic. Provide a copy of the new book for children to take home.

Altogether, then, the intervention provided opportunities at school for children to learn to recite and talk about book information, it became a vehicle for connecting school and home and a way for parents to support their children's literacy, and it allowed children to connect their school activity to home activities through independent use of their own books. This intervention did not replace the regular book-reading to children. What it did was to allow children themselves to take charge of bocks that were at their level of reading development, a level in which rereading by an adult allows children to "read" by reciting familiar books.

RESULTS: To evaluate the effectiveness of the intervention, tests administered at the beginning and end of the Early Start and kindergarten years measured children's knowledge of letters, book and print concepts, and language progress. Significant differences were found between children who received the book materials and children in the same program who were taught by the same teachers but did not receive the book materials. The nature of differences over the two-year period agrees with studies of the developmental progression in reading, replicating emerging literacy development research (Ehri, 1991; Juel, 1991; Mason, 1980). Children often begin by memorizing environmental print signs and labels and whole stories that have been reread to them. These activities lead them to pay attention to print and pictures and to letters and printed words. Over the next several months, or even a year or two, they gradually acquire labels for literacy elements (letters), they form constructs needed for connecting letters to words (letter sounds), and then they realize ways to analyze printed words through letter-pattern analysis.

Explanations of how children's literacy development was fostered through this intervention was evident from: interviews with parents about their appreciation for having materials that their child enjoyed using; Early Start teachers' explanations about their role in the intervention; and interviews with the children at the end of first grade, in which they described their home reading interests and their involvement and interest in literacy. Parents whose children received book materials from Early Start appeared to have a better understanding about how to involve their child in literacy. Teachers have always read books to the children. But with this intervention, the teachers engaged children both in reciting the books themselves and in discussing the book language and the ideas from the books. As a result, the teachers noticed a greater interest in book reading by children, an eagerness by children to take their books home, and an enthusiasm from parents that the addition of the books is helpful to the children. When we interviewed the children at the end of first grade who had received the books two years before, their responses suggested that they were more often engaged in reading, rereading, and talking about books at home and at school. They remembered receiving the books and commented favorably about their Early Start experience.

DISCUSSION: Egan (1987) traces the path of orality to literacy, through a historical and philosophical argument, beginning with the Homeric period, which features orality, into the Platonic, in which literacy rises. Orality is poetic, an energetic immersion into ways to enchant, enthrall, and impress hearers. It features rhyme, metaphor, rhythm, and story telling as ways to involve and improve memory. It stresses participation in the here and now, resistance to change, and direct learning through experiences. Literacy, by contrast, is rational and critically reflective. It engages the mind in mental analysis rather than concrete concepts, focuses on linear rather than interactive ideas, and leads to the development of abstract concepts. Western culture is embedded in this rational view, in knowing, with feelings and emotions treated as separate mental capacities, divorced from systematic methods of learning.

Egan asserts that Western culture, having inadvertently turned away from the benefits of orality, may have bred illiteracy -- an absence of both oral and literate qualities. He proposes that early childhood education attend to "prominent features of orality -- the poetics of memory, participation and conservation, and classification and explanation that have proved bon à penser [good for thinking]". Features of orality that could be preserved and coupled with children's growth toward literacy include the following characteristics: sensitivity to the sounds of words and their emotional effects, a precise use of metaphor, rhythm, repetition, rhyme,

story-shaping of narratives and myths with vivid characters and events, visual imagery, close and systematic observation of natural objects and processes, development of a sense of humor and of the absurd, and a use of binary opposites to catch and expose important themes. Book reading, story telling, and memorizing songs, rhymes, and little books strengthen the oral tradition and provide a foundation for literacy. In other words, in the development of orality will come a deeper understanding of language. We would argue that we have not adequately utilized or appreciated these strengths. It is time to revive and expand on time-honored activities, activities that are about stories, books, language, and literacy.

Teachers need to understand how to introduce literacy in appropriate ways to young children. The reasons are that early knowledge about literacy predicts later success in reading, and that an intervention which provides opportunities for children to explore print materials and talk to adults about reading and writing can make a difference, particularly for children whose families lack the resources to purchase and use literacy materials without the help of the schools. Our studies indicate that teacher-child and parent-child book reading can be pleasurable, and can lead to important insights about how to read and how to understand written information. Book reading builds on orality while allowing children to refine and extend their concepts about written language. It helps children form a bridge from oral to written language so that they can begin to analyze the distinguishing features of written language, and it gives them a foundation upon which to build meaningful representations of written texts. It is a vital activity and can easily be included in preschools or in kindergartens.

Society can then provide an effective environment for fostering language and literacy in the preschool years. The key is to place emergent literacy activities within the framework of orality -- language discussion, play with language, recitation of songs, rhymes, and predictable books playing a major role -- that children become involved in reading and talking about language in literacy contexts. That is, by fostering language in meaningful literacy contexts, teachers can lead young children toward appreciation and an understanding of their language within literacy frameworks.

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The Effects of Shared Reading Experiences in Head Start Children's Concepts About Print and Story Structure *Jean Ann Box, Milly Cowles, Jerry Aldridge*

Studies designed to analyze the influence of Head Start programs have often used different curriculum models, but few results of specific teaching methods and strategies within them have been given. Investigating specific instructional areas within various areas of the curriculum can provide a stronger framework for successful curriculum development. Johns (1982) reported that teachers who recognize that children's lack of knowledge about print-related concepts may be one of several factors that make reading difficult need to use appropriate activities to help a child make sense out of instruction. According to Morgan (1987), "instructional strategies which capitalize on the types of understandings children bring to the reading task may prove to be very effective in enhancing early literacy development" (p. 63). She emphasized that social interactions involving literacy participation can

extend the concepts that preschoolers already possess. Through the interaction of teaching and learning, a child's natural development can be refined and extended. Little research has been conducted that actually addressed specific techniques that can be used in the classroom by the teacher so that children from low socioeconomic backgrounds can expand their concepts about print and story structure. Both have support as being positively related to children's learning to read (Morgan, 1987; Johns, 1982; Clay, 1975; Kontas & Huba, 1983), and are being discussed more and more in "the whole-language literature."

The aim of the study was to determine whether a specific teaching strategy could enhance development of emergent literacy. Specifically, the goal was to ascertain if, after participating in shared reading experiences with predictable books, there were differences in responses of Head Start children to concepts about print and story structure. Primarily, the following questions guided the research: 1) Are there differences in responses of Head Start children to concepts about print on the Concepts About Print Test following participation in shared reading experiences with predictable books? 2) Are there differences in responses of Head Start children to concepts about print on the Early School Inventory -- Preliteracy following participation in shared reading experiences with predictable books? 3) Are there differences in responses of Head Start children to story structure on the Early School Inventory -- Preliteracy following participation in shared reading experiences with predictable books?

The research is based on the work of Ferreiro and Teberosky, Clay, Holdaway, and McKenzie. Ferreiro and Teberosky (1982) found that young children have acquired some print knowlege before they enter school. They explained the developmental processes of children learning to read and write from the child's perspective. Ferreiro and Teberosky found it is not a matter of transmitting knowledge that children would not have otherwise learned but of making them aware of knowledge they already possess. The results of their investigations indicated that children's learning processes are often different from what the teacher expects, and that lower-class children do not come to school without any knowledge about print. Clay (1979) emphasized the importance of children's involvement in directional learning and concepts of print as they learn to read. Directional learning includes an awareness of left and right sides, orientation to the open book, and observing directional behavior. Children with a limited background take longer to understand that words spoken by children and teachers have "something" to do with the marks in books. Holdaway (1979) suggested that the enjoyment of rich, open literature, with a focus on the whole story or literacy transactions, needs to be brought into the center of literacy instruction in the classroom. Also, he used the name "shared book experience" to describe the process because he wanted to preserve and develop language experience techniques greatly enriched by the most satisfying children's literature available. McKenzie (1978) described a similar developmental transition into literacy. She explained that a teacher who has knowledge of children's literature has a different understanding of reading and can offer real stories, because expectations are not placed on the children to begin by getting all of the words right. A teacher with this knowledge believes children will work on the text and gain their own meaning. Children, from the beginning, engage in dialogue about what they are reading, process the text actively, respond to it, draw closer to the author's language and get to know about the visual aspects of print.

METHOD: A randomly assigned three-group pre- and post-test experimental design was used. The independent variable was a shared reading experience compared with normal instruction and a placebo group involved with movement activities. The groups were as follows: the experimental group participated in shared reading experiences with predictable books with their regular teacher; the control group proceeded with normal instruction that emphasized units and learning centers; the placebo group participated in movement activities that they had not previously engaged in during the school year with their regular teacher. The dependent variables were pre- and post-test scores on two instruments: Concepts About Print Test (Clay, 1985) and the Early School Inventory -- Preliteracy (Nurss & McGauvran, 1986).

The population consisted of 75 Head Start children who ranged in age from 4 years 1 month to 4 years 11 months. The Head Start director randomly selected 15 classrooms from a total of 33. There were 18-20 children in each classroom, ages 3 to 5 years old. Five children were randomly selected from each teacher's total number of 4-year olds in the classroom for the experimental, control, and placebo groups, which gave a total of 25 children in each group. The classrooms were located in Head Start centers or public schools in one geographic area. The population from which the subjects of all three groups were drawn can be assumed to be similar with respect to socioeconomic level. The teachers were the same educational level, but were different in age, and had been involved in various educational experiences. The age range of teachers was 21-62. All had graduated from high school and had completed the Child Development Associate National Credentialing Program requirements, but none had completed a Bachelor of Science degree in education. At pretest, the Concepts About Print Test and the Early School Inventory -- Preliteracy were administered individually to children in the experimental, control, and placebo groups. The treatment was begun the week after completion of the pre-test phase and lasted eight weeks. Prior to beginning, group training and demonstration sessions for the teachers who were participating in the experimental and placebo groups were conducted. Since the children were receiving the normal instructional program, teachers in the control group did not require specific training. Charts were provided with guidelines for the teachers participating as the experimental group instructors to follow during shared reading experiences. Classroom teachers were selected as the instructors of the experimental and placebo groups to alleviate researcher bias. Other children in the classrooms were not instructed with the children chosen as subjects. Each classroom included in the experimental and placebo groups was monitored five times during the eight-week period.

As part of the preconditions that were established, it was necessary to specify the content and objectives of instruction for the shared reading experiences and movement activities. The framework for the development of objectives in the experimental group exposed to shared reading experiences was derived from the three-dimensional model developed by Holdaway (1979). Areas included discovery, exploration, and independent experience and expression. Examination of "discovery" revealed an introduction of a new book in the listening situation with maximum participation in predictable, repetitive structure. Objectives included: providing an enjoyable story; inducing a desire to return to the book on subsequent days; and encouraging participation by inducing children to chime in on repetitive sections and possible outcomes, engage in suitable expressive activities, and suggest an obvious word. "Exploration" consisted of re-readings for familiarization and teaching. Increasing unison participation is natural to this re-experience. Objectives included: deepening understanding and responses; helping children become aware of the special structures of the story; and teaching relevant reading strategies in relation to the text. "Independent experience and expression" revolved around independent retrieval of the experience in reading or reading-like ways by individuals or small groups. Objectives included: providing opportunities for independent reading by individuals or very small groups; encouraging the development of self-correction through the use of familiar language models; and encouraging expressive activities so that children would identify more fully with the story and internalize the language as a permanent part of their competence.

The experimental group instruction focused on "discovery" of the predictable big books, poems, songs, and finger plays on Tuesday and Wednesday, and "re-readings" on Wednesday, Thursday, and Friday, for eight weeks. As the children became familiar with the text, with teacher guidance each week, "independent sessions" were conducted. The format for the placebo group sessions consisted of the classroom teachers' conducting movement activities that the children had not previously engaged in during the school year. The framework for the development of objectives in the placebo group was derived from the works of several researchers in the field of movement education for preschool children. Gober and Franks (1988), Friedlander and Lohmeyer (1988), and Gabbard (1988) emphasized that movement helps young children become aware of their bodies and their relationship to space and objects. Movement helps children move more efficiently, use objects, establish healthy exercise habits, and develop motor skills. Stinson (1988) and Metz (1989) agreed that movement activities provide exposure to music and dance and encourage children to explore their world and discover what they can do in it through these mediums. Objectives for using movement activities include: providing opportunities for creative movement; increasing children's awareness of their bodies; developing locomotor skills; and developing confidence and a positive self-image.

The control group subjects received no special instruction. Their regular curriculum emphasized social studies, science units, and learning centers with activities available in the art, housekeeping, library, listening, mathematics, and language arts areas. Instruction was based on activities described in Resources for Creative Teaching in Early Childhood Education. Areas covered include: self-concept, families, family celebrations, seasons, animals, transportation, and the world I live in. Resources for the teacher are another part of the curriculum. These resources include: good curriculum planning, learning centers, planning for group time, learning games, routine times of the day, indoor and outdoor large-muscle activities, teacher resources, and notes for guiding behavior.

The post-test phase began immediately following completion of the treatment program. Subjects in the experimental, control, and placebo groups were administered the Concepts About Print Test and the Early School Inventory -- Pre-Literacy individually by the researcher and an assistant.

RESULTS: Data collected from pre- and post-test scores of the three groups on the Concepts About Print Test and the Early School Inventory -- Preliteracy were submitted to a one-way analysis of covariance. Where F-ratios obtained were statistically significant, data were subjected to the Scheffe multiple-comparison procedure and the Eta-square test of practical significance. The placebo and control groups did not show growth in concepts about print. None of the groups had significant gains in the area of story structure. Shared reading experiences made a difference in a relatively short period of time with Head Start children in the language arts curriculum. Brown, Cromer, and Weinberg (1986), Johns (1980) and Clay (1975) have also reported that personal, shared book experiences enhanced literacy awareness and competence and broadened children's literacy interest. Based on the findings, shared reading experiences would be a beneficial addition to the Head Start curriculum.

In the beginning, the subjects' teachers were not familiar with the shared reading procedures and indicated that they needed training. They reported at the end that the procedural guidelines and training were beneficial and would be used in the future. Based on the data from the placebo group, sensory-motor instruction did not produce a significant influence on young children's acquisition of knowledge regarding concepts about print and was not effective as an element that enhances early literacy development. The control group subjects' knowledge of print concepts did not positively improve.

DISCUSSION: Although reading books to large groups is a strong part of that particular Head Start's curriculum, the process of shared reading experiences expanded children's knowledge of concepts about print. Brown, Cromer, and Weinberg (1986) emphasized that home story reading by parents has been found to be more productive than traditional large-group story reading time found in preschools. They reported that reading to large groups of children in the school setting does not appear to accomplish the same ease in learning to read that individual or home reading episodes do.

Since the findings indicated a significant difference among subjects, shared reading experiences were effective as a teaching strategy for helping young children acquire more knowledge of concepts about print. If Head Start children can enter school aware of concepts about print, perhaps they have a better chance of becoming proficient readers and writers. Strategies such as shared reading experiences obviously provide early literacy experiences that low-socioeconomic children are often deprived of at home. They also provide children with a background of experience more similar to those that middle-class ones have had.

Since the data did not indicate a significant difference in the three groups for story structure, shared reading experiences were not effective as a teaching strategy for helping young children acquire knowledge of beginning and ending of a story, and the setting, characters, descriptions, conversations, feelings, and sequence within a story. A longer treatment period may be needed, specific teaching guidelines that promote the teachers' awareness of story elements also may be beneficial, and a stronger emphasis may need to be placed on retelling stories. Also, it seems reasonable to assume that children may take longer developmentally to understand the complexities associated with story structure. The danger of any instructional strategy, even one as informal as developed here, is that individual differences may be ignored. Caution is urged to apply developmental principles whenever any instructional strategy is instituted with young children.

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Discussion *Erika Hoff-Ginsberg*

My job as a discussant today is in a sense a very easy one, because the findings of the four research projects that you have heard described converge on a single clear conclusion, and that conclusion is that pre-school children benefit from shared book reading experiences. The papers that we have heard report benefits of early book reading experience on a range of language and literacy measures. I would add to that evidence from my own work on social class differences in mother-child interaction, that when mothers and children read books together, the social class differences that you see in other settings are attenuated. Less educated mothers sound more like more educated mothers when they are reading books with their children than in other settings in which mothers and children interact.

One public policy implication is clear, and that is, early intervention programs should provide book reading opportunities for children. But what form should the intervention take? Not all of the interventions that you have heard described today worked equally well. They did not work or even look at effects on the same measures, and there are details of these studies of the nature of the interventions that you heard described and the nature of their findings that need to be looked at very closely when someone sits down to do the difficult work of taking this research and trying to decide, OK, we know book reading with children is a good thing to do, but how exactly should we implement this? When that detailed work of examining the findings of these and other studies in the literature is done, one question that will arise is what the role of parents should be, and it is to that question that I would like to address the remainder of my remarks. I want to say essentially two things. First, parents are invaluable allies in the effort to provide young children with book reading experience, and programs should be designed to engage parents in this effort. Many of the programs that you have heard described this morning have specific mechanisms for doing that. Second, when programs to provide early book reading experiences for disadvantaged children are designed, they must be designed so that they do not depend upon parental involvement, even though all efforts to encourage parental involvement are good.

I suspect that my statement that programs should not depend upon parents is going to be controversial. Let me say why I say that and then proceed to give you some evidence. Many parents of children who need such early intervention programs are not

up to the demand of these programs, and to require parental involvement is not fair to children. Other parents may be very eager and competent participants in early intervention programs, but our expectations for outcomes in the children must be tempered by what I will argue is the likely fact that getting low-SES parents to read books with their children will not eliminate the discrepancy between tne home literacy environment of low-SES and high-SES children.

Now, let me give you my evidence for the first contention, that not all parents are up to the demands of such programs. The projects that demonstrate effects of parents reading at home with their children work with self-selected samples. Lower-SES parents are notoriously difficult to recruit and retain in studies. You have heard some of the presenters today describe attrition rates in their studies of up to 50% and variable compliance among those parents who do participate. Yesterday, Chalkley and Leik reported that only 20% of the parents that they contacted to participate agreed to participate, and then, among those who did agree to participate, they had 100% attrition in one cell of their design. Add to that the demographic trend that Dr. Bronfenbrenner has told us about -- increases in the number of single-parent households, and in the number of children born to drug-addicted mothers. What that suggests is that there are going to be increasing numbers of children who need intervention but who do not have a parent who can be depended upon to participate.

I am not indicting the parents. There may be very good reasons. These parents operate under terribly stressful circumstances, but the fact remains that not all children who need early intervention have a mother they can bring in tow to participate in programs that depend upon bringing books home, upon mothers doing particular things at home. Combine that with evidence such as findings of Emmy Werner's that resilient children, that is, children who manage to thrive despite stressful environments, are children who are well read. Another piece of evidence that I think is related comes from Terry Moffitt's research on juvenile delinquency. She has found that school achievement is negatively associated with juvenile delinquency in an at-risk sample. What I think these data suggest is a strong case for the argument that children have to be engaged in literacy, even if their parents cannot be.

My second point is that even when you are successful in getting low-SES parents engaged, it will not completely erase the difference between the literacy experiences of low-SES and higher-SES children. This comes from my own work, and my work is not on Head Start samples. My work compares an upper-middle-class, college-educated sample with a working-class high-school-educated sample, so my lower-SES group is not a disadvantaged group. They are less educated mothers, they are blue collar families, but they are not disadvantaged or deprived children, by any stretch of the imagination. What I have done is borrow a few of the literacy related items from Betty Caldwell's HOME inventory. You go into the houses and you ask the mothers and you look around and there is a check list of characteristics of the home environment. Some of these measures have to do with the kinds of literacy experiences mothers provide for children.

Now these are my data comparing the blue collar, high school educated to the white collar educated mother. For the item, does the child have 10 or more books? The response was 100% in both groups -- and that is not even based on mother's reports. I or my research assistant saw 10 or more books that the child owned in 100% of both groups of home. Is the child read to on a regular basis? Ninety-two percent of the middle class sample said yes, and 95% of the working-class sample said yes. I present those data to make the case that my working-class sample is a sample of mothers who are completely convinced of the value of reading to their children, of providing books for their children. They are everything that you could hope to accomplish with Head Start mothers.

If you ask another question, does the child take books out of the library? you start to see a little drop-off in the beginning of a difference between these two groups. Of the middle-class mothers, 81% reported taking their children to the library -- and let me say these children are 4 1/2 years old at the time these questions are asked. Seventy-one percent of the working class mothers do. So you see some drop-off and the beginning of a class difference, but still these mothers are making efforts to provide their children with literacy experiences.

Then we get to measures of the parent's literacy activities, and this is very much related to DeBaryshe's findings that the parents' own interest in book reading, the parents' own literacy, is related to how much they read to their children. Over and above what parents do with their children, there is an influence on children of the parents' own engagement in literacy, and I suspect that you will see effects of this on measures that have been referred to as enjoyment, fun in reading, as much as you will see it on the more quantifiable Peabody scores and One-Word scores I also suspect that whether the parents provide a model for literacy is going to make a difference over the child's whole lifespan at home. Whether parents read at home as a general rule or only read to their children because they have heard that it is important, makes a difference.

Let me get back to my data. Are 10 or more books visible in the home? Yes for 96% of the middle-class families, and only for 60% of the working-class families. Of the high school diploma mothers, 40% of them do not have books visibly displayed. Does the family subscribe to a daily newspaper? Ninety-two percent of the middle class samples do; 75% of the working-class samples do. Does the family subscribe to any magazine at all? Ninety-six percent of the middle class samples do, only 64% of the working-class family do. So even in these working-class families, families who believe in the benefits of reading to children and make efforts to provide literacy to their children, equally supportive home literacy environments as indexed by the models for reading that parents provide is not found. My point is there are limits to how much you can change parents. My working-class parents are convinced of everything that early intervention programs would hope to convince Head Start mothers of, yet they have not been made the same as college-educated parents for whom book reading and their own literacy is a part of their daily lives. Somewhere, probably in high

school civics, I think, I learned that the function of public education is to provide equal opportunity to enter society to all children, regardless of their family's social status. Head Start as a program is an acknowledgement that that effort must begin early.

Over the past few days, I have heard all sorts of exciting evidence of the beneficial effects on parents of Head Start's programs. I have no quarrel with any of that evidence, but I do want to sound a less happy note. Efforts to help children that focus on parents as the route to remediating disadvantage will still leave many children out in the cold, and those children ought to be considered when public policy is made.

AUDIENCE DISCUSSION

The first question that was raised concerned the choice of standardized measures for assessing outcomes. Panelists reported that other dependent measures were utilized but the data was not ready to be analyzed yet. Possible effects on other outcomes such as turn-taking, the child's ability to tell stories of his/her own life, etc., will be examined. The issue of parental compliance was also mentioned. Compliance in the programs was monitored in a variety of ways across the studies. In one study parents used a daily check off list in which they noted which book was read and how much time was spent on the reading activity. In another study parents tape recorded their book reading. A third strategy employed entailed the involvement of the day care teachers and directors who would call the parents and remind them to participate. Monetary compensation also was used.

The fact that DeBaryshe did not see results of her intervention given the apparent logical approach, was of interest. She explained that the original program was designed for two-year-old children. Although she made modifications, she questioned whether it was the best approach for four-year-olds. She also noted that methodological limitations did not allow her to control for possible preliminary differences between her groups which may have obscured significant effects of the program.

Panel 124 SOCIALIZATION, VALUES AND PRACTICES IN MINORITY FAMILIES

Chair: **Richard Ruth**; *Discussant:* **Harriett Romo**

Hispanic Parents as Educators of Young Children *Lourdes Diaz Soto*

Young Hispanic children in our nation originate from diverse traditions and a rich cultural heritage. The fastest growing U.S. minority includes people from South and Central America and the Caribbean as a result of immigration or colonization. The parents of our Hispanic young children have tended farmlands in the Southwest and East, labored in the factories of the East and Midwest, and contributed service and professional skills to the nation's economy. Concern about how Hispanic learners are faring in our educational system has been expressed by policy makers and educators (Soto, 1989, 1990a, 1991a, Valdivieso and Davis, 1988). The home learning environment, or the educational process variables, provided by one subgroup of Hispanic parents on behalf of their young children, has been my focus (Soto, 1986,1990,1991). The initial basis of comparison among parental educational strategies has been related to the schools' conception of differential achievement (test scores or teacher nomination). These research endeavors have reported within-group data, avoiding deficit yardstick comparisons among groups of culturally and linguistically diverse parents. The researcher has sought to uncover existing educational practices by parents of Puerto Rican mainlanders by conducting home visits and interviews with over 130 families over the past six years. The families have been migrants and non-migrants, laborers and housewives, technicians, and white collar workers. The salient findings capable of enhancing the lives of young children and their parents will be discussed. The findings of home visits and interviews with Puerto Rican families residing within the Commonwealth of Pennsylvania can be categorized into six major themes: educational aspirations, parental optimism, parental confidence, collaborative parent education models, personalized community agencies, and native language use.

Hispanic parents in our nation initiate the education of their youngest learners with high educational aspirations. A few of their voices help to illustrate this point. Mrs. Rivera confided, "My husband works two jobs so that our kids can have a better life than we did. We want our kids to go to college and to be happy in their jobs"; whereas Mr. Santos states, "I come home tired and smelly from the mushroom factory and I tell my boys that if they don't want this kind of life they better study. Other families make their children work at an early age because they have to. I make the boys study even though it means we have less to eat." Hispanic parents have indicated high hopes, dreams, aspirations, and a willingness to sacrifice for their offspring. Their greatest desire is to envision their children as having access to the American dream. Juan Diaz, a disabled Vietnam veteran, expressed his feelings: "When I came home from the war, I was pretty angry and bitter...being a cripple, you see...but I try not to show my pain to Awilda. I want her and all the kids in this neighborhood to give it their best. If we parents encourage and help them they will begin to believe that they can make it...even if we (our generation) couldn't."

Regardless of the schools' conception of differential educational achievement, all of the parents interviewed have expressed high educational expectations. The differences found include a lack of parental knowledge regarding the implementation of realistic financial options and planning. Families who have not been traditionally college-bound because of educational tracking practices have not had access to vital information. Future research needs to continue to dispel myths and stereotypical notions about Hispanic families who are indeed interested in how children fare in schools.

Two studies (Soto, 1990,1991a) drew comparisons among recent arrivals and families who have resided over 20 years in the mainland. Optimistic outlooks for the family were expressed by the more recent arrivals of the youngest children. Parents expressed higher aspirations for themselves (PAT) and a willingness to participate in family involvement (FI) activities. The significance of the family involvement (FI) subscale is in its measurement of educational activities that family members participate in together. This subscale (Marjoribanks, 1979) was initially found to contribute 40% of the variance in the school's measurement of academic achievement (Soto, 1989).

The questions that come to mind are: Why is the initial optimism expressed by parents of young recently arrived children not maintained? What happens to families who have lived on the mainland for longer time periods (over 20 years)? It was also interesting to note that the more recent arrivals had higher educational attainment which begs an additional question: What educational climate have we created in our nation that only the parents of our youngest and more recent arrivals have higher educational aspirations for themselves and their children?

Parental confidence: Hispanic parents have expressed confidence in some educational partnerships but not in others. Grisella's grandmother relayed the following: "Grisella wants to be a lawyer, you know she made her decision when she was in the little Head Start school in the community center. The Head Start teachers included the whole family in activities. They were so *carinosas* (friendly) that we made them *arroz con dulce* (rice pudding) every time we could. Grisella's whole group came out in the newspaper dressed up for a play. I know that Grisella always remembers that experience as the best one yet."

Parents at a nearby elementary school, however, expressed uncertainty in their associations with educational personnel. This particular school has a large oak tag sign in the front hallway that reads, "Parents Keep Out! Wait for the School Bell!" The parents whose children attend this school have been made to feel as if their educational contributions are less than valued and that parenting and teaching roles are separate domains. Mrs. Rivera expresses the feelings of many parents: "I'm afraid to go to the school because of my accent. The last time I met with Alberto's teacher she kept saying "Speak up...speak up... (Everything was) speak up!" I cried all the way home because if I was *abochornada* (embarrassed) I can imagine how Alberto feels."

"The principal told us not to hang around the kindergarten classrooms," Mrs. Ortiz remarked. She said we are noisy and if it is raining to bring an umbrella. They complain about the parents not coming to school but, you know, they just don't want us there."

Hispanic children are more likely to have mothers participating in traditional housewife roles (Select Committee on Children, Youth, and Families, 1987), creating a potential source of talent for educational programs. Head Start continues to serve as a role model and pioneer in its inclusion of parents in early childhood education. The dissemination of successful parent-participation models will assist lower elementary schools in implementing these established and valuable practices.

A collaborative parent education model was initiated with 20 of the families interviewed (Soto, 1989b; 1990b). Existing prepackaged parent education programs earmarked for mass markets may not be meeting the needs of culturally and linguistically diverse parents. An alternative model was implemented by conducting needs assessments and allowing parents and teacher trainees to act as collaborators. The educator/professional was not the only parenting expert in the relationship, since parent-teacher collaborations have much to offer to our knowledge base in this field. A deficit philosophy was avoided by affording parents an opportunity to impart knowledge to our teacher trainees. In this instance, parents were experts and became teacher educators (Soto, 1991 b). Opportunities exist for creative parent education models; this particular model benefited parents, teachers, and young children. Tailor-made, interactive, personalized, and individualized parent education models appear optimal and culturally congruent for Hispanic families.

Collaborative and personalized community agencies were acceptable to the Hispanic parents we have worked with. The concept of "*personalismo*," where the inner worth of the individual is valued, appears to be of primary importance. In one urban, central Pennsylvania community, we participated in an impressive state-level migrant education program. The program afforded the participating families information about local resources and opportunities to establish social networks and receive individualized services.

One aspect of the home learning environment, namely home language use, was the focus the last study in the series (Soto, 1991a) presented elsewhere. Fifteen higher achieving and 15 lower achieving (aged 5 - 7.5) Puerto Rican children's parents were interviewed with regard to home native language use and parental preference for native language school programs. Teacher nominations of higher achievement were confirmed by school district standardized tests. The findings indicate that parents of higher achievers may be providing higher threshold levels of language proficiency by expecting an emphasis on native language competence and maintenance with the accompanied gradual and developmental exposure to second language learning. These parents provided optimal levels of language learning, thus facilitating the ability of young children to experience "success" in schools.

What are the implications for policy makers and researchers interested in and capable of enhancing the lives of young children and their respective parents in the 1990's? A continued need exists for non-deficit perspectives to replace stereotypical notions about Hispanic families. The idea is to build upon the strengths and positive attributes of families. The "caring curriculum" modeled by Hispanic families can serve to strengthen current national concerns. Examples of family attributes within the "caring curriculum" include: child-centered expressions and closely knit family values, e.g., "*Boricua*" and other families encourage young children to attend and partake in social activities such as dinner parties, weddings, and birthdays; the concept of "*servical*," which encourages helping and interdependent relationships at a time when volunteerism is being called for by government leaders;

extended family concepts allowing "*abuelitos* and *abuelitas*" (grandmothers and grandfathers) to become an integral part of child care; and the concept of "*consejos*" (advice), affording families built in possibilities to gain new knowledge and wisdom.

Early childhood educators and policy makers have long recognized the important role families play in the education of their young children. The collaborative nature of Head Start programs serves as historical evidence that partnerships among caregivers at home and at school can be valuable. The dissemination and infusion of these models to lower elementary public schools appears vital for the continued high optimism, aspirations, and confidence of Hispanic parents as educators of young children.

The community-agency spirit advocated by Head Start programs is commendable in light of the merging and emerging roles of parents and teachers in an evolving society. In many ways, caregivers are becoming a part of the extended family network for young children, similiar to extended Hispanic families. An important area in need of careful consideration is the native language use of our youngest learners. Research evidence continues to indicate the need for optimal levels of native language proficiency. A review of this issue is reported elsewhere (see Soto & Smrekar, for a review). Policy makers need to continue to enhance optimistic family perspectives and encourage the "caring curriculum" modeled by Hispanic families. Researchers should continue to pursue qualitative ecological research that affords insights into the daily lives of Hispanic families. The voices of the players as they negotiate meaning in our society may begin to impact policy far more than complex statistical designs and analyses.

In conclusion, it can be noted that Hispanic parents have made and continue to make important contributions as educators of young children. Their willingness to participate in educational activities on behalf of their offspring makes them a valuable resource for the nation's educational agenda and in shaping Head Start for the 1990s. Personalized, collaborative endeavors appear vital for the continued success of Hispanic parents as educators of young children.

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The Effect of Family Composition on Parent-Child Interaction

Melvin N. Wilson, Jennifer Boyer, Ivy Hinton, Angela McElroy, Di-Ann Philip, Ursula Smith, Hope Solomon

In their attempt to ensure educational development of disadvantaged children, such programs as Head Start stress the importance of family involvement. However, it has been argued that these programs have neglected to recognize culturally relevant factors that lead to economic mobility (Randolph, 1988). The African-American family has always had a unique structure compared to the more traditional American family. African-American families tend to be in extended family systems (Wilson, 1984). Understanding the functioning and interaction of these families and their effects on African-American youth is essential to any program emphasizing family involvement.

Although an estimated 50% of Black children are living in single-parent families, it is not accurate to assume that these children are living in one-adult households. Black single-parent families are likely to live in an extended family household (Hofferth, 1984). Previous research has indicated that the presence of an additional adult in a single-parent household can affect the perception of adult-child interactions, family environment, child care, and household duties. For example, for the Black one-parent family, grandparents, uncles and aunts, siblings, cousins, and even fictive kin often serve as surrogate parents in the rearing of young children (Martin & Martin, 1978; H. McAdoo, 1978; Wilson, 1984). Several studies indicated that one-parent families were more involved in extended-family networks than were two-parent families (Colletta, 1981; McLanahan, Wedemeyer, & Adelberg, 1981). Colletta (1981) indicated that single parents relied on extended family networks for social support and child care assistance more frequently than did two parents. Moreover, the quality of child care in one-parent families was increased and the level of stress experienced by single mothers was reduced when the extended family was involved (Kellam, Adams, Brown, & Ensminger, 1982). Single mothers reported family networks were contacted more frequently than friendship or conjugal networks (McLanahan et al., 1981).

In sum, the presence of additional adults in single-parent families affects childrearing activity by (a) providing alternative sources of intimacy and emotional support to the mother and children, (b) providing assistance in childrearing to the mother, and (c) assisting the mother in setting and enforcing limits on children (Colletta, 1979, 1981; Field, Widmayer, Stringer, & Ignatoff, 1980; Kellam et al., 1982; Wilson, 1984). Whereas accumulated evidence suggests that one-parent families are more involved in extended-family networks than are two-parent families, other questions are raised regarding the actual involvement of adult relatives other than

the mother in childrearing activities. In many instances, the presence of a second adult is essential to the family's well-being. Dornbush and associates (1985) found that when grandmothers were present in one-parent families, mothers exercised more parental control and adolescents had less autonomy in family decision-making and participated in fewer deviant activities than in family situations involving one-adult households.

The perception of family climate and observed adult-child interactions are significantly affected by the number of adults present in the home (Tolson & Wilson; 1990; Wilson & Tolson, 1986). In homes where there were two or more adults present, the respondents, including adults and children, perceived more familial moral-religious emphasis and less organization than did the respondents in homes where only one adult was present. In addition, mothers demonstrated a conversational preference toward interaction with other adults than interactions with children. These profiles suggest an understanding about the amount of interactant vigilance required of a single mother rearing several children alone (Wilson & Tolson, 1986).

In summary, it appears that childrearing is best accomplished as a cooperative venture involving adequate adult resources. And, as the research evidence suggests, adequate adult resources imply the availability of at least two adults. Thus, the primary question raised in this study is the effect of diverse Black family structures on the content of parent-child interactions.

Family researchers have suggested that some of the most frequent childrearing activities in which parents engage are: nurturance -- parental support, affection, and/or encouragement; demand -- parental action involving supporting achievement oriented behavior or skill acquisition; control -- parental action involving setting and enforcing limits on socially appropriate behavior; and punishment -- parental punitive actions, such as the withdrawal of affection and/or privileges (Baumrind, 1967, 1971; Becker, 1964; Belsky, Robins, & Gamble, 1984; Emmerich, 1977; Maccoby, 1980).

The questions addressed in this study concerned the effects of family structure, that is, one-parent family unit or two-parent family unit, and grandmother's residence, either living with the family unit or at least 10 miles away, on adult-child interaction. In particular, this study presents chi-square analyses on the impact of family structure and grandmother's residence on the categories of adult and child verbal behaviors. The family unit consists of various combinations of mother, father, and grandmother. There were three adult behaviors: nurturance, which reflected support, encouragement, and praise; control, which was indicated by concern with appropriate behavioral limits and restrictions; and punishment, which focused on penalizing specific inappropriate behaviors. There were also three child behaviors: maturity, as characterized by the child responding appropriately to adult conversational behavior; effectance, which involved the child engaging in or initiating conversation with an adult; and tractability, which is the manner in which the child responds to adult control or punishment categories. Maturity, effectance, and tractability were further divided into two levels: high being age-appropriate behavior and low being inappropriate behavior for the child.

Generally, it was expected that mothers' and children's use of the relevant behavioral categories would be a function of the number of adults in the household. It was hypothesized that the level of maturity and initiative shown by the children would be related to the number of adults present in the family besides the mother. More specifically, we proposed that as the number of adults in the family increases, the amount of nurturance provided by the mother would also increase, with a simultaneous decrease in the number of control statements used. Furthermore, the amount of nurturance provided by the mother would be positively related to the amount and level of maturity and initiative shown by the children. In single-parent families, it was expected that the parent would use more control and punishment behaviors than nurturant behaviors. Households involving more than one adult would rely on nurturant behaviors. Children would exhibit lower use of effectance, maturity, and tractability behaviors in single-parent households, whereas children in multiple-adult households would utilize greater amounts of high effectancy, maturity, and tractability behaviors.

METHOD: The participants were 50 Black families who have completed four videotaped observation sessions of their evening meals. The families were recruited in a rural southern university community of 90,000 people to fit into a 2 x 2 factorial design of family structure (single vs. dual-parent) by grandmother's domicile (residing with the family vs. residing at least 10 miles away). In addition, all participating families had at least one child between the ages of 8 and 12 years old.

Using analysis of variance procedures and reporting differences significant at least at $p < .05$ level, two-parent family types had significantly more family income, more income per capita, more persons dependent on that income, and more highly educated fathers than did single-parent family types. Compared to two-generational families, three-generational families had lived in their current residence longer, had more additional household and family members present (beyond mother, father, grandmother and all children), and fewer children.

The sample can be characterized as lower middle-class with a mean income of $14,750; 2.4 children whose mean ages were 9.5 years; and no additional adults present beyond mother, father, and/or grandmother. The parents were generally in their mid-30s and were high school graduates (64.9% of the parents had at least a high school degree). In comparison to 1985 census data, 65.7% of the parents of Black children in the United States had at least a high school degree and their families reported a mean income of $14,855 (U.S. Bureau of the Census, 1986). Thus, the socioeconomic status of this sample is comparable to that of Black families in the United States.

After an initial self-report interview, four videotaped sessions of the family's evening meals were completed. In order to facilitate familial interaction and to minimize interruptions during filming of the evening meals, the families were requested to adhere to

certain rules, including the presence of all family members, one-room restriction on family members' movement, no television, no guests, only brief answering of telephone and no call-outs, and no talking to research assistants.

The unit of analysis was a thought unit, defined as a small and meaningful segment of verbal interaction that can be coded. The data were coded according to the separate categories of adult and child behaviors. The coding reliability was established by using interjudge reliability procedures (Cohen's Kappa greater than .80).

RESULTS: Punishment statements, which made up less than 1% of the conversations, were too infrequent to be analyzed. Therefore, the results are based on adult nurturant and control behavior. Overall nurturant statements, 64.2%, outnumbered control statements, 35.8%, nearly 2:1. A significant relationship between marital status and the use of nurturant versus the use of control statements was found (X^2 = 148.59, df = 1, p = .001). Single-parent families used significantly fewer nurturant statements, 25.2%, and more control statements, 22.6%, than statistically expected. Dual-parent families used more nurturant statements, 39.0%, and fewer control statements, 13.2%, than expected. Grandmother's residence does not appear to be related to the use of nurturant versus control statements (X^2 = .921 df = 1, p = .337). A relationship between family type and number of control statements used was detected (X^2 = 57.73, df = 1, p = .0001). Single-parent families with grandmother present used significantly more control statements than expected -- 22.9%. Single-parent families without grandmother used fewer control statements than expected -- 40.2%. Dual-parent families with grandmother present used fewer control statements than expected -- 5.2%. Dual-parent families without grandmother used more control statements than expected -- 31.7%. Number of nurturant statements used does not appear to be related to family type (X^2 = 2.45, df = 1, p = .118).

Children used more high-maturity statements, 80.3%, than low-maturity statements, 19.7%. There appears to be a relationship between marital status and use of low- versus use of high-maturity statements (X^2 = 67.34, df = 1, p = .0001). Children of single-parent families used significantly fewer high-maturity statements, 37.6%, and more low-maturity statements, 12.9%, than statistically expected. Children in dual-parent families used more high-maturity statements, 42.7%, and fewer low-maturity statements, 6.9%, than expected. Use of low- versus high-maturity statements does not appear to be related to grandmother's residence (X^2 = 1.06, df = 1, p = .303). Furthermore, there does not appear to be a relationship in family type and the number of low-maturity statements children used (X^2 = .173, df = 1, p = .677), or family type and the number of high maturity statements children used (X^2 = .935, df = 1, p = .334). Children used more low-effectance statements, 70.4%, than high-effectance statements, 29.6%. There does not appear to be a relationship between marital status and use of low- versus high-effectance statements (X^2 = .981, df = 1, p = .322). Nor does there appear to be a relationship between grandmother's residence and use of low- versus high-effectance statements (X^2 = 2.91, df = 1, p = .088).

There does not appear to be a relationship in the family type and the number of high-effectance statements children used (X^2 = .011, df = 1, p = .915). However, a relationship between family type and number of low-effectance statements used was detected (X^2 = 41.22, df = 1, p = .0001). Single-parent families with grandmother present used significantly fewer low-effectance statements than expected -- 8.4%. Single-parent families without grandmother used more low-effectance statements than expected -- 53.7%. Dual-parent families with grandmother present used more low-effectance statements than expected -- 9.4%. Dual-parent families without grandmother used fewer low-effectance statements than expected -- 28.4%. As with adult punishment behavior, children's tractability behavior was too infrequent for analysis -- less than 1%.

DISCUSSION: Results suggest that a relationship does exist between familial structure, characterized by the number of adults present in the family, grandmother's presence either in residence or at least 10 miles away, and categories of adult and child verbal behaviors. The most significant and consistent of these findings is the strong influence of marital status on adult and child verbal behaviors. On the other hand, a weaker and more inconsistent relationship exists between the presence of the grandmother and adult and child verbal behaviors. In terms of adult behavior, a higher number of nurturant rather than control statements was used, that is, single-parent families did utilize significantly lower amounts of nurturant statements and higher amounts of control statements than did dual-parent families. The implications of these findings are consistent with literature suggesting that single parents are at higher risk for increased stress and psychological distress. Increased levels of stress may lead to use of greater control when compared to dual-parents who receive support from each other and therefore may tend to be more at ease and more nurturant. Surprisingly, grandmother's residence did not appear to be related to the use of nurturant versus control statements. This is especially surprising given the fact that recent literature has identified the grandmother as a strong influence in Black families. Many grandmother and mother households function the same or better than some male/female households. One would expect similar results for child verbal behavior in dual and mother/grandmother homes.

Overall, children exhibited more high-maturity than low-maturity statements. As predicted, a relationship existed between marital status and the use of either high- or low-maturity statements. Children of dual parentage used a significantly greater amount of high-maturity statements than did children of single-parent homes. This implies that children in homes with more than one adult may be more mature due to the fact that they probably receive more support. Research has shown that children in single-parent homes are usually under a greater level of stress when compared to other children. These children are expected to take on increased

levels of responsibility that they may not be mature enough to handle. Once again, the presence or absence of the grandmother does not have an affect, nor does family type have an affect on the number of low-maturity statements given.

The finding that children utilized more low-effectance rather than high-effectance statements is difficult to interpret. Also, there was no relationship between marital status, grandmother's residence, or the use of the two levels of effectance. Nevertheless, a relationship was found between family type and the number of low-effectance statements used. Single-parent families with a grandmother present used fewer low-effectance statements than expected, while single-parents without a grandmother used more low-effectance than expected. Also dual-parent families with a grandmother used more low-effectance statements than expected, while these same family types without the grandmother used fewer low-effectance statements. It is interesting to note that while many of the children from dual households displayed high maturity they also showed low effectance. This finding is contradictory and is further complicated by the inability to know the specific age of each child. Further research will have to be conducted before any final conclusions can be reached.

CONCLUSION: A relationship does seen to exist between family structure, grandmothers' residence, and the categories of adult and child verbal behaviors. The best predictor of the adult verbal behaviors and the child verbal behaviors is the marital status of the parent. To a lesser degree they are also influenced by the presence or absence of a grandmother. Many of the differences found between single- and dual-parent families, as well as those with grandmother either present or absent, may be due to the inherent differences between single- and dual-parent families that cause them to function differently. Since single-parent families are more commonly under increased levels of stress and have less support, they tend to utilize more control rather than nurturant statements. Their children, while expected to take on more responsibilities, may not be equipped to handle the situation, and therefore may tend to give fewer high-maturity statements. These inappropriate responses further perpetuate the cycle of control and immaturity. As this is a preliminary study, further research will have to be conducted in this area before any final conclusions can be reached.

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Family and Childrearing Values and Perspectives Among Vietnamese Refugee Families of Head Start Children *Daniel R. Scheinfeld*

The interview data to be presented here are part of the background material for the creation of a Head Start cultural module entitled "Enhancing Relationships between Vietnamese Refugee Families and Head Start Personnel." The purpose of this cultural module is to provide preschool teachers who serve Vietnamese refugee children with an understanding of the family and childrearing values of the Vietnamese families they serve, and to provide ways in which a preschool teacher can, with the collaboration of Vietnamese parents, introduce important values and observances of Vietnamese family life into the classroom.

This interview study of family and childrearing values was conducted with 20 Vietnamese refugee families who had children enrolled in Head Start programs in Chicago. All but 2 of these 20 families (90%) fall into the category of "Boat People," having escaped from Vietnam by small boat sometime during the past decade. The other two families came to the United States through the Amerasian orderly departure program. The interviews lasted approximately two hours and were conducted in 1989 by the author with the very important assistance of Phuong Chung, a translator. Phuong Chung also played a major role in the design of the questions. The 20 families have been in the United States an average of six years. In most cases, the Head Start child was born in the United States. Fifteen of these 20 families have both parents in the home. Three are mother-only households; in two cases the father's participation in the household was ambiguous. The average education for mothers is seven years; for fathers, nine years. The

average age of mother is 31, and father, 32. Roughly half of these families are Buddhist (55%) and half Catholic (45%). Thirteen of the interviews were with mothers, three with fathers, two with grandmothers, and two with mother and father mutually participating.

In conducting a study for use by practitioners there are at least three broad questions to consider: What kind of cultural understandings are potentially useful? How does one get these understandings? (For example, what kinds of questions does one ask?) and, How does one organize the information in one's mind? In relation to the third question, I would like to suggest a model for organizing one's perceptions of a family culture. The model is constructed from the perspective of understanding the child's experience in the family. There are two major axes to this model: Order and Nurturance/Mutuality. Cutting across and embedded in these two axes is a third dimension, which we can call Achievement/Competence; i.e., the kinds of competencies that are valued and promoted by a family culture in relation to particular age, gender, and roles of its members. From one family to another or from one cultural tradition to another, the material represented through this schema can vary in at least four ways: variations in the content of each axis; the weighting of particular themes within an axis such that some things are seen as more important than others; the relative weighting of one axis in relation to another; and the ways in which the content of the various axes combine or, alternatively, seem to mutually exclude each other.

The model, along with the types of analyses suggested above, can help us to look at both commonality and diversity among the families within a particular cultural group sample. For example, in this case, we can look at the themes shared by a high proportion of the Vietnamese families interviewed. We also can look at diversity in the themes and combinations of themes reflected among these families.

We first will look at themes that are commonly shared across these 20 families on each of these three dimensions, starting with the order axis. In most cases we will include only those themes that are mentioned by at least 60% or more of the informants.

Order: The material on each of these axes tends to be elicited by a particular sequence of questions asked in the interview. Concepts pertaining to order tend to emerge in response to the question sequence that starts with, "What are the qualities that you want to see in a 4- or 5-year-old boy/girl?" After a list of qualities is established, the parent is asked to pick the five most important to them (referred to below as the "top 5"), and then, later, to rank each of these five in order of importance.

One hundred percent of the families mentioned some form of deference to elders as an important quality that they wished to see in their 4- or 5-year-old boy or girl. Ninety-five percent ranked it in the five most important (top 5), 90% ranked it in the top two, and 60% as the most important. The two forms of deference most frequently mentioned are "listening," which was mentioned in 90% of the interviews, and "politeness," mentioned in 75% of the cases. The most important meaning of "politeness" is greeting adults properly (crossing arms, bowing slightly, addressing the adult with terms of respect). From a very early age, children are taught to properly greet adults (average of 2.6 years reported in the interviews). These gestures towards adults are held to be particularly important, in considerable part because they are viewed by outsiders as an indicator of the family's adequacy in socializing the child and, indeed, as an indicator of the overall quality of the family. Deference to elders, in its many manifestations, is at the heart of Vietnamese family culture. It is the one thing that tends to be clearly non-negotiable for young children. We see this reflected in the interview material and in our observations of families. In addition to being the most frequently mentioned and most prominently ranked, deference to elders was the quality most frequently identified by the parents as "distinctly Vietnamese." Violations of this principle of deference to adults were identified as the behaviors which most frequently made the parent angry or unhappy (71%), as well as the category of behavior that most frequently led to punishment (85%).

When asked what were the most important things for us to tell Head Start teachers about Vietnamese family values, 83% of the parents mentioned some form of deference to adults. One of the greatest supports that Vietnamese parents experienced in their homeland was the very strong emphasis in the schools on hierarchical order, obedience, and gratitude to parents. They frequently mention how much they miss this support in the American setting. For example, the Vietnamese are frequently appalled by the Head Start practice of children addressing their teachers by first name. Deference to elders is the quality in children that parents become concerned with at the earliest age (average of 2.9 years for all forms of deference, in contrast to 4.9 years for all the other qualities mentioned).

The very great importance placed on deference to elders is articulated through the terms a child learns for the personal pronoun "I". Three different terms are used within the immediate family: one when speaking to parents (*Con*), one when speaking to older brothers or sisters (*Em*), and another when speaking to younger brothers or sisters (*Anh* if speaking as older brother, and *Chi* if speaking as older sister). A fourth term for "I," *Chau*, is used when addressing grandparents, aunts or uncles. Thus, the moment a child expresses the word "I," he or she is making a statement about age and deference distinctions pertaining to the relationship in which he or she is acting. In some families, the familiar/intimate forms "*Tao* (I) - *May* (you)", are allowed between siblings. But in other families this is strictly forbidden.

Morality (honesty in communication, non-greediness, being straight/righteous) is mentioned by 85% of the parents as a quality desired in children. Order in space and time is mentioned by 70%. This principally refers to children keeping their things in order (40%) and the importance of doing things at the proper times of the day (30%). In cases where children had younger siblings, 42% of the parents mentioned the importance of "making concessions" to younger brothers and sisters. The Vietnamese term for this is *Nhuong Nhin*, which literally means to yield (*nhuong*) and in so doing to constrain oneself (*nhin*). This self-constraint comes close to the notion of biting the bullet, in American terms (or, in the Vietnamese phrase, to "bite teeth"). The practice of *nhuong nhin* is also

held to be vital in maintaining harmony in the adult world; for example, between husband and wife, between co-workers, or between worker and boss. It is a mechanism to maintain "harmony." Finally, 55% of the parents of girls mentioned the importance of being soft, gentle, and graceful. This belongs predominantly on the order axis because it has a strong prescriptive flavor to it (stemming from the Confucian requirements for the behavior of women).

Nurturance/Mutuality: We now turn to the dimension of nurturance/mutuality, without which our picture of family values would be grossly incomplete. Much of the material on this axis emerges in relation to two questions: 1) What are the good things about having children in contrast to not having children at all? and 2) What are the moments you spend with your child that make you happy (feel good)?. For question one, 65% mentioned being taken care of in old age by their children. This tends to mean more than just physical care. It also tends to mean emotional nurturance -- "someone to come and hold your hand and talk to you," for example. Sixty percent mentioned that children bring happiness to the family. Fifty percent stated that the presence of children strengthens the husband-wife relationship. Of the group, 80% mentioned that the husband-wife relationship would be "boring," "cold," "empty," "lonely" (or related meanings) without children, e.g., "a husband and wife having nothing much to talk about without children." For the second question, 65% mentioned the child being nurturant to the parent (child greets parent, hugs, cares about and has concern for, smiles at parent). Fifty-five percent mentioned parent-child conversation (child confides in parent, shares intimate thoughts /feelings, talks about self -- (*thu thi* = child whispers a confidence in parent's ear).

Achievement/Competence: These data emerged in relation to the question regarding desirable qualities in children (see order dimension above). Seventy percent of the parents mentioned studying hard or doing well in school/study as an important quality for their children. At this age, this tends to mean showing an interest in books at home or engaging in a focused, academic-like activity, such as coloring carefully in a coloring book. Seventy percent mentioned the child being an effective agent in one way or another. This is includes qualities such as patience, independence, not being fearful in relating to others, clever, quick to learn, reflective in one's actions.

The two major axes of order and nurturance/mutuality come together in the very important Vietnamese notion of "harmony in the family." To begin with, the single most important idea associated with "harmony" is the notion of hierarchical order. A virtual synonym for harmony in the family is, "When up is up and down is down we get along peacefully." However, harmony also stems from the order created by the older yielding and being nurturant to the younger in exchange for deference given by younger to older. This is communicated in the following proverb: "When the younger brother obeys his older brother and the older brother is kind to the younger brother, their family is full of blessings." Harmony in the family, in turn, is the key to the overall goal of "happiness in the family." At the core of this process is the exchange of deference and nurturance. The equation is as follows: Children give deference to their elders (parents, grandparents, older siblings). In return, elders give nurturance. However, children gradually return that nurturance, even at a young age. The return of nurturance is governed by the basic principle of reciprocity summed up in these brief proverbs: "When you eat the fruit remember who grew the tree." "Never forget the benefits done to you , no matter how small they may be."

The themes reported above that occur with high frequency in the interviews create a meaningful picture and tend to jibe with the picture of the Vietnamese family that we see in the literature. However, with the exception of the universal emphasis on deference to adults, we do see considerable variation in response. For example, a 70% frequency in the occurrence of a particular theme still leaves 30% who did not choose to mention that theme. We have begun to explore that variation through several types of analysis. Of particular interest are the types of clustering that we see across the three major dimensions of order, nurturance/mutuality, and achievement/competence. For example, three factors that emerge in a rotated factor matrix show us this potential (only the higher loadings, positive or negative, are given below):

Factor 1: School Achievement in Top 5 Qualities (+).73625; Parent-Child Conversation (makes pt. happy) (+).88088; Child Nurturant to Parent (makes pt happy) (+).44070; Order in Space and Time in Top 5 Qualities (-).76931 (negative). **Factor 2:** Effective Agent in Top 5 Qualities: (+).99621; Child Nurturant to Parent (Makes pt. happy) (+).49227; Child Learns From Parent (makes pt. happy) (-).61421 (negative). **Factor 3:** Deference to Elders is Both First and Second Priority (+).53453; Child Takes Care of Parent in Old Age (good things) (+).99486.

In Factor 3, there is association between an especially strong emphasis on "deference to elders" (both first and second priority choices), on the one hand, and child "taking care of parent in old age" (Pearson $R = .52$, $p < .05$), on the other. Further, the former is a sufficient condition for the latter. This linkage suggests a strong traditional orientation pivoting on the principle of filial piety. It occurs only among women informants. Factor 1 connects "school achievement" with "parent-child conversation," bringing to mind the frequent association that some Vietnamese parents make to the importance of supporting their child's school achievement in the home (Pearson $R = .69$, $p < .05$). Factor 2 represents an association between "effective agent" and "child nurtures parent" (Pearson's $R = .45$, $p < .05$). "Effective agent" is negatively related to "child learns from parent." This overall configuration suggests a parental preference for the child to be relatively independent from and nurturant to the parent. Factor 1 also suggests that an emphasis on the discipline of "order in space and time" (mainly involving maintenance of neatness in the house) tends to preclude many forms of mutuality that are positively associated with an emphasis on "school achievement" and "efficacy" (parent-child conversation, child nurtures parent). It suggests a family in which the child is expected to become socialized through adherence to parental structures rather than through closeness of relationship. These four linkages, viewed in the sequence in which they are described, suggest a

continuum ranging from parent-child relationship as a mediating factor in the socialization of the child to increasingly less relationship emphasis.

Discussion *Harriett Romo*

I have been doing work with Hispanic adolescent children who are at risk of dropping out of school. In our research we are focusing on the family to see the coping strategies that the family uses to try to keep that child in school. All of these papers were very interesting to me because I am seeing the school failure end of the young child and what happens on the longer road. I am also seeing the role that the adolescent plays in the family. I think we have accomplished a lot when we think of how culture used to be introduced into the classroom. In the 1960s people thought they were including culture if they had a pinata in the classroom or they had a tortilla-making demonstration, which reinforced stereotypes of what different groups were expected to be like. So I find these papers especially encouraging in looking at the diversity and the real values that the families have and how they interact in a family context.

The questions that this last paper addresses are very important ones. How do we introduce the values into the classroom? How do we really understand what those values are that the families have? The use of videotapes is exciting because we can make them accessible to parents who are not literate and teachers who have to deal with a lot of different languages and a lot of different cultural groups. One of the key things that I found was this axis of variation. It is encouraging that all of these papers are dealing with very small samples. And yet, we can see within our small samples how varied the families are and what differences we can expect to find in these larger samples. So I think that your axis of variation within an ethnic group, within a small group that is very homogeneous in other ways, is extremely exciting.

This question about whether school achievement is connected with happiness is especially interesting. We are dealing with children in our study who have experienced school failure, which is causing a lot of stress and conflict within the family. How a child is doing in school is definitely related to the family interactions, to the family's mental health, and to the family's way of coping as a family. In this last paper Scheinfeld has not paid enough attention to the role of a child in an immigrant family. In this Vietnamese culture the respect for the elders is so important. In immigrant families it is often the young child who is exposed to the new culture through the schools more quickly than the adults. So they become the ones who know the system, who know the culture, and the English language. Therefore, that whole status relationship is reversed. The child has more power and knowledge than the parent. How does this affect these relationships and values within the family?

In the second paper, I was particularly interested and impressed with the way Wilson is going about gathering his data. Because when we want to study families the question is always: How do you get into the family? How do you do field research with families? It is very hard to get into those personal relationships, to live with the families. I was impressed with his idea of looking at discourse at family mealtimes within the family. I wanted to ask him why he chose to have family structure as the key variable. Why is the number of adults in the home more important than the level of education of those parents, the number of children within the family, the sex of the children or the age of the children, or the socioeconomic background of the family? I noticed that the families are somewhat controlled. There is a large percentage who have a high school education. In our sample we found a real variance with parents who got that high school competency degree versus those who managed to be successful enough to go through the system and get the actual diploma versus families who have two years of schooling or, for immigrant families, no years of schooling. So even within that very small range, there may be tremendous variations in educational level of the parent. Is that going to affect whether they are going to be nurturing or controlling in their interactions with the children? The sex of the children is also important to consider. A lot of sociological research is showing that parents are more nurturing with female children than they are with male children. So, is that something that was a variance in the family circumstances? Also, number of children is a factor. Are you more controlling if you have a lot of children than if you have one or two? These families were fairly similar in size, but maybe four children would be different than one child or two children. How does that impact the way that the adults are going to relate to those children? Certainly in sociology, socioeconomic status of the parents has always been a factor in the style of interaction that parents have with children. I wondered why more emphasis was not put on those factors.

Family interactions at mealtimes I think are key, because that is where a lot of the communication occurs. But how realistic is it to encourage or insist that all of them have to be at the table at the same time? What does that do to the normal interactions that might occur? How much of these rules that you set, which are essential if you are going to get your videotape or recording, distort what might really occur during a family situation there? I would like to see elaboration on how the coding was done. In interview data it is very difficult to determine whether something is nurturing or controlling. Are we interpreting what we are saying in the way that they would interpret it? Americo Parevis, a folklorist, has done a very nice article about language play. He says that when researchers are present families tend to play with language. They may be playing with you as a researcher. They say something that you would interpret in one way which they would interpret in a very different way. All of us dealing with languages have to be very sensitive to that. I am searching desperately for ways to control that kind of variance in meaning and interpretation. One really important thing in all the research that is being done here is that we are matching up people with sensitivity to the language and the culture to go into families. We are no longer saying that it is not an important aspect of doing research of this type. That is real important here.

I would like to see more on the role of the siblings. What do the adolescent children do? I find that adolescent children take on a lot of the parenting responsibilities, even if there are two parents in the home. They are often disciplining younger children. They are often the ones that are setting the role models. They are the ones that the younger children are listening to, sometimes even more than the parents. Attention needs to be paid to what role the siblings play in the family interactions.

I was particularly impressed with the emphasis on the extended family structures, and I would like more information about what other kinds of family structures are there. Who are these fictive kin and what role do they play in disciplining the children? And the older siblings again -- what role do they play in using control language at the table or in the family interactions?

I am going to propose a question to the author of the last paper that has been very troubling to me. What is it that makes a Hispanic family a Hispanic family? Is it language? That is certainly key. But we have a lot of variation between the Cuban Spanish, the Mexican-American Spanish, the Central American Spanish. Research on Hispanics are dealing with a very diverse group, with a lot of subcultural differences. There are a lot of socioeconomic and immigration status differences that have to be addressed. And I think the paper here is important because it is looking at migrant/non-migrant families.

The families who are recent immigrants have very different perceptions and experiences than the families who are long-term residents of the United States. There are educational aspirations and parental optimism. Immigrant families come in with very high enthusiasm -- valuing education, seeing the possibility for their children to achieve. Long-term families -- U.S. born Hispanics and African-Americans -- are often very discouraged about education and feel very negative about the school system. They still have those values that education is important, but they do not feel that it is working for them.

My key question is what happens to those kids over time? What is going on in our schools that discourages that aspiration and enthusiasm and sense that education is going to be the answer? John Ogbujan, an African-American anthropologist who has done some interesting work in minority education, has found a difference in caste status. Mexican-Americans and African-Americans, because of status in society, have very different experiences than other groups. We have to be conscious of the way that the ethnic group or subcultural group of that child is being treated in society -- its status in society, its experiences in society -- when we start looking at their own personal values and interpretations of what is going on. A key question for researchers is why does this optimism not last? Why can't we keep kids in the schools feeling successful and feeling that it is going to be something that is going to work for them?

Another key factor identified was parental confidence. Many parents do not feel comfortable approaching the schools. They do not feel that they can go and lobby for their children in the school system, which is necessary to get them through our schools. What factors contribute to that confidence? It is key to find out how we can help parents. What can be done to encourage parents to have the confidence to go and point out what is happening with their children and be an advocate for their child in the system?

In her paper Diaz Soto mentions structural factors. It is key to look at what it is within the educational system, the bureaucracy, and the classroom that is not optimal to getting parents involved and feeling confident in the schoolroom.

In our work we are finding that bureaucratic glitches keep coming up. When a secretary says that a parent cannot enroll their child because there is a fee for an overdue book, a parent will keep a child out for two weeks until they get their next paycheck and go and pay that fine. Those who feel confident in dealing with the school system would say, "My child is enrolling; I will pay the fee when I can. He is not going to miss school for this." Confidence is extremely important. If we look at bureaucratic glitches, procedures, structures that intimidate parents, that will be a very productive area of research.

Soto also mentioned parent education models. More emphasis needs to be paid to that and to define what we are talking about in parent education. I have found that in low socioeconomic areas, in working with immigrant parents, schoolteachers and staff, even of the same ethnic group, tended to talk down to parents and treat them as children. They were very negative without meaning to be in the kinds of ways that they were interacting with the parents. Whereas in the higher socioeconomic areas, the teachers and the staff tended to talk to the parents on a more equal basis, to praise what they were doing with their children. They did not treat them as children themselves. Looking at these models and using discourse analysis or content analysis would be a very productive way to see what happens when we try to educate parents or deal with them in a school setting.

I concur with you about the importance of language use. Parental emphasis on the value of native language use was linked with achievement. This seems to be a pride in their own background and a confidence in their own language. When the schools make you feel negative about your language, that has important consequences. That is an important finding. She also talks about building curriculum, and tapping the resources of the Hispanic family as educators: looking beyond just the parents as people who are possible resources for that child, looking at the network of information resources is important.

In our work we are asking the parent and the adolescent: Who do you go to if you have a school problem? Who do you talk to if you want to talk things over about school? We are finding that their network of resources is very limited. If many people in your family have been unsuccessful in the school system, which is true for many of these adolescents -- their brothers and sisters have failed, their parents have failed, they don't know very many people who have graduated from high school, they certainly don't know people who have gone on to college -- the network of these families to reach out and get positive and helpful information to deal with the schools is very limited. We need to look at that and see ways of expanding that for them.

I want to commend all of these researchers for doing extremely important work on minority families and for bringing a much more sophisticated approach to culture and values in the classroom than I think we had at the beginning of the Head Start programs and the beginning of multicultural or bilingual education.

MELVIN N. WILSON: I would just answer some of the questions that were raised by the discussion. I did not go into the demographic differences, but they were there, as you pointed out. And the main difference is with income, in that with an increasing number of adults in the household there were greater amounts of family income. However, looking at my work and other studies, there were not any discernible or significant differences based on income. With regard to the number of children, there were slightly more children in the multiple-adult households. With the grandmother present, there were often three children, as opposed to two children. There was a significant difference when mothers had to monitor more than one child, though I did not talk about those differences here. Because of the ages, the siblings did not take on the older sibling role as much as I had expected from the literature. In fact, a number of my findings go against what we normally see in the literature, and that was one of them.

DANIEL R. SCHEINFELD: A really important question was raised about the translating. Our method is not foolproof, but it had some safeguards built into it. The questions themselves were designed over a six-month period with Phuong Chung and other Vietnamese. We constantly modified the questions so that they fit the culture. Phuong did the original translating into Vietnamese, and then we had other people at the Vietnamese association look at those questions to see whether they were meaningful, see what they meant to them. The questions were also translated into English so that I could respond. That exercised some control. Phuong was heavily involved in designing the coding categories, although she did not do the coding herself. The coding was done by two graduate students who checked each other. This is another methodological issue not relating to your question. I have people negotiate differences, if they have them. You have two people code the same material independently. They look at their codings together and see where they are discrepant, and they talk about it. Very often the reason there are discrepancies is that somebody missed something. So that is how we did the coding.

WILSON: One of the reasons I picked the evening meal for the use with the Black families in Charlottesville was that in the past researchers had put together some contrived kinds of family discussion exercises. The most contrived one for the kinds of families I was interviewing involved planning a vacation. The problem with that, particularly for my families, is that in planning vacations the first thing the families would indicate was, "Well, if I had a relative in that town we would just go and stay with the relative for a couple of weeks or however long the relative will allow us to stay." So some of the earlier procedures just did not work with the families I wanted to be involved with. However, what we chose did put some constraints on some of the family members. We were interested in what would happen in a situation the family was used to dealing with. Although families do not take each and every one of their meals together, it is a situation in which families are comfortable, in which they are used to performing. It was not something that they did each and every day. Most of them indicated that they took about 80% of their meals together.

Because we were taking in videotape equipment into the family and setting it up and observing the family, we were concerned about the effect it would have on their interaction patterns. Although we did not control for that, we did review the interactions with the families. All of the families indicated that, "This was our usual pattern." They did indicate that sometimes a child would get out of line and would have to be disciplined, but the discipline was usually the use of a control statement and not the use of punishment. This sent me back to the literature looking at the use of punishment. I realized that punishment itself is an infrequent behavior in family life. When a child is being punished each and every day, then something is going wrong in the family. I was concerned that the videotaping would cause things to happen that would not normally happen. I was also concerned that the families, after the first interview or videotaping, would tell us that they did not want to participate anymore. Usually we were more successful when we had the first videotaping. The kids really enjoyed seeing themselves on the monitor and being on television. They got a kick out of it. They would encourage their parents to get us back.

Panel 125 UNDERSTANDING AND SERVING AT-RISK CHILDREN AND THEIR FAMILIES

Chair: **Catherine C. Ayoub**

Children of Parents in Jails and Prisons: Child and Family Research Implications for Shaping Head Start in the Nineties *Velma LaPoint*

ABSTRACT

Research on children of incarcerated parents, who are generally low-income, African-Americans, or members of ethnic groups of color, has indicated a host of problems for these children and their families. Although the number of children in these circumstances is not known, estimates indicate that it is high. For example, 200,000 children in 1980 were estimated to have mother in jail or prison. Low-income, African-American, and other ethnic groups of color are more likely to be engulfed in the penal system

as a result of conviction for illegal activities. This has implications for Head Start, given that its client population of children and families is generally low-income African-American or other ethnic groups of color.

Over the last 15 years, research on the impact of parental incarceration has documented a host of problems confronted by children and their families. However, research findings have been hampered by inherent methodological problems, fragmentation, inconsistent findings, and not enough substantive research. If effective policy and services are to be developed, implemented or enhanced, accurate information about children of incarcerated parents is needed. This becomes crucial, given the low-income and ethnic characteristics of the families to be served and the frequent ethnic and income status differential of policy-makers and practitioners serving this group of families.

This presentation focused on synthesis and integration of research findings on children of parents in jails and prisons and their implication for shaping Head Start in the 1990s. This meta-analysis of research findings and related reports in the following areas were reported: 1) parental experiences prior to, during, and after incarceration; 2) children's experiences prior to, during, and after parental incarceration; 3) the experiences of pregnant women and their newborns; 4) legal needs of and services for incarcerated parents and their children; 5) policies relating to incarcerated parents and their children; and 6) the kinds of resources available for families. Theoretical and methodological issues and problems were identified in areas of conceptualization, sampling, data collection methods, data analysis, and interpretation of findings. Particular attention was given to issues of diversity.

This presentation is crucial for several reasons. First, there is need for accurate research on which to build effective policy and service. Second, there is a need for accurate information on families that are culturally diverse. Third, Head Start may be able to intervene in the lives of children and their families to help prevent parental incarceration, to assist children and families during parental incarceration, and to help children and their families in the aftermath of parental incarceration. Finally, this group of children and families are in need of advocacy by those in position who are able to document and articulate their concerns and problems. Such advocacy can build on family strengths, integrate families with other support systems, and help stabilize families for a better quality of family life.

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Inner-City America: Raising Children in Dangerous Environments *Sydney L. Hans, Robert J. Jagers, Judith S. Musick*

In the latter half of the 20th century, numerous policy initiatives in the United States have been designed to address the developmental issues of young children living in poverty. Most of these initiatives have been based on the assumption that the high rates of "developmental failure" -- particularly poor school achievement -- of low-income children have an environmental basis and should be addressed through changes in the children's environment. Notwithstanding the continuing theme of environmental determination during this period, there has also been considerable evolution in the thinking of American child development researchers, policy makers, and the general public as to the precise nature of environmental risks faced by children living in poverty and how best to address these risks.

During the 1960s much of the concern for young children in poverty focused on the issue of environmental deprivation, particularly the lack of intellectual stimulation provided by low-income parents. Considerable research was devoted to documenting the presumed intellectual deficits of so-called disadvantaged children and the "deficient" parenting skills of their economically and/or

culturally impoverished parents (cf. Laosa, 1984). During this same period numerous programs, most notably Head Start, were initiated to provide enrichment to children from deprived environments.

In subsequent years, conceptions of early human development began to evolve. In particular, as the multicultural nature of American society became increasingly apparent, it also became apparent that minority children in general and low-income minority children in particular are developing in proximal cultural contexts that are quite different from mainstream American culture. Their lives are continuously defined by characteristics of family, communities, social class, ethnicity, cultural heritage, and real or imagined opportunities for the future (cf. Bronfenbrenner, 1979; Cochran et al., 1990). As members of non-mainstream cultures they are faced with different cultural tasks and a different cultural milieu in which to negotiate the universal developmental tasks of the early years, and instead of showing deficient development, they likely are successfully developing very different competencies than those expected by mainstream American culture - particularly mainstream culture, as represented in the school classroom (cf. Ogbu, 1988).

With this increasing recognition of the cultural context of child development, many -- although far from all -- early interventions for children have attempted to become more culturally sensitive (cf. Lieberman, 1987; Laosa, 1983; Slaughter, 1988). Such sensitivity has often taken the form of respecting the building on positive features of cultures as well as helping children develop skills that will help them with the challenge of negotiating both the more proximal cultural milieu which includes both Afro-cultural and minority influences and that of mainstream European-American society.

As there have been significant social and demographic changes over the past 25 years, we have become increasingly concerned with the impact of the minority experience on young families. Beginning in the mid-1970s, after having declined for 15 years, the rate of poverty among families with young children began increasing. Moreover, it has been argued that there was also a major change in the character of poverty in American society (Wilson, 1987). Continuing racial inequality in combination with major changes in the economic structure of the United States resulted in a situation where poverty increasingly became concentrated in urban minority communities. There has been a subsequent increase in unemployment, but also in violent crime, gang and drug-related activities, poor educational achievement, and physical and mental illness. We currently understand very little about the manner in which these new or exacerbated features of poverty are affecting the development of young children. While numerous powerful accounts of life in underclass neighborhoods have appeared in the media, only a few have focused on the lives of children in such neighborhoods (Kotlowitz, 1991; Williams, 1989; Sullivan, 1989; Zinsmeister, 1990). Virtually no attention has been given to this matter by child development researchers. Further, no insight has been offered into the concerns of low-income parents who face the challenge of raising their children in such dangerous environments. Similarly, programs for young children have given little attention to how they can effectively work with children and families living in such increasingly difficult environments.

This paper will provide information about the concerns of parents who live in conditions of extreme urban poverty. The site for the research was an elementary school located in the shadow of Chicago's largest high-rise public-housing project -- the Robert Taylor Homes. This school was chosen for study because its children had the poorest academic achievement records in the city. The surrounding neighborhood is in many ways prototypic of emerging urban underclass communities. It is a predominately African-American population that is socially isolated both from the mainstream European-American and from the broader African-American communities, and is marked by a variety of indicators of social dislocation, including unemployment, welfare dependency, female-headed households, high crime, and rampant drug use.

With the support of the Spencer Foundation, we initiated a relatively comprehensive research project designed to look at family factors related to readiness for school entry. As part of this project, 58 parents with kindergarten-age children responded to a mix of structured and open-ended interview questions dealing with many issues of family and community environment. The total interview took roughly three hours to completed. Two of the open-ended questions on this interview dealt with the parents' concern for their children's development:

Question: "All parents are concerned about things that might affect their children. What types of things are you concerned about from day to day?" Question: "What types of things are you concerned about for your child's future?" Parents' responses were transcribed and coded into content categories that were derived after looking at the range of responses made by the parents.

When asked to address their day to day concerns about their children, parents' responses fell into six general categories: educational achievement or opportunity; childish misbehavior, such as rowdiness, tantrums, or sassiness; being the victim of abuse or molestation; physical harm caused by accident or illness; being a victim of criminal behavior, such as being hit intentionally or unintentionally by a bullet; and becoming involved in drug use and gang activity. Almost three-fourths of the parents gave as their first response an answer related to their child being either a victim of crime or child abuse or becoming involved with crime or drug abuse. It is striking that these parents have real fears about their 5- and 6-year-olds becoming involved with gangs and/or drug dealing. Another 10% of the parents first mentioned concerns about their children's physical safety. Most of these concerns involved physical aspects of their environments, such as open elevator shafts, falls from high windows, and broken glass in the playgrounds. Thus, the parents overwhelmingly mentioned concerns that were directly related to the dangerous nature of their community. Interestingly, even in the context of an interview focused on educational issues, only one parent first mentioned a concern about her child's education.

When asked to comment on their concerns for their children's futures, parents fell into seven categories: educational achievement or opportunity; employment; racial discrimination or other blocked opportunity; adolescent pregnancy; illness; being a victim of criminal behavior; and becoming involved in drug use and crime. These parents' concerns about their children's futures

continued to focus heavily on involvement in crime and drug use. They were particularly concerned that their children would become directly involved in such activities. However, a sizable group of parents -- almost 25% -- listed as their primary concern their children's educational futures. This was in striking contrast to the small number of parents who listed educational issues as a current day-to-day concern.

Other data from these same parents show that they place a high value on the education of their children and are aware of the importance of education for their children's futures. When we asked parents how important education is for their child, fully 97% responded either "very important" or "most important." Nevertheless, while living in a dangerous inner city environment, they are preoccupied with many more pressing concerns in their daily lives. Education is a concern that they are forced to push into the future because there are more real dangers to worry about in the present.

In follow-up to these questions about the children's concerns, we asked parents: "How much control do you feel you have over this concern: a lot, a little, not very much?" Fully 74% of the parents said that they have a lot of control over their day-to-day concerns about their children, and 73% felt that they had a lot of control over their children's futures. Clearly, and perhaps even surprisingly, these parents feel that they are empowered to protect their children from harm. While we did not ask parents how they thought they were protecting their children, we can speculate from our observations that such protection often takes the form of restrictiveness. Mothers of young children often do not allow them to leave their apartments for days at a time, except to go to and from school. They may require them to sit huddled patiently on the floors of their bedrooms during the many hours each week that there is gunfire, and they probably place a priority in their childrearing on teaching children to follow instructions quickly and without questions. All of these types of parental behavior are clearly adaptive within the context in which they live -- how can a good mother do otherwise in a dangerous environment? But such styles of parenting behavior can also carry costs for the child and for the relationship between parent and child. Protection and restriction may translate into an environment that limits children's experiences and nurtures fear and/or defensiveness. In their over-optimism about their power to protect their children from danger, parents may also feel a profound loss of self-efficacy in their parenting roles and anger at their offspring should their children fall victim to the dangers that lurk outside their home.

In the course of our larger research project, we also collected data from a subgroup of eight parents whose children had been identified by teachers as doing well in kindergarten. These parents of successful children were interviewed in focus groups of two or three. These focus groups involved two hours of discussion structured loosely around open-ended questions about the nature of parenting and education.

While the focus-group questions did not specifically deal with the issue of danger in children's environments, this theme emerged strongly. These "good" parents articulated clearly that the world is and will continue to be a dangerous place for their children -- dangerous within their households, within the community, and within the broader society. In elaborating the strategies they use to protect their children from danger, at least three types of strategies were clearly described in their discussions.

First, these parents believe in taking personal responsibility for their children's welfare. They are protective of their children. They take seriously their responsibility for their children and do not abdicate this responsibility to others. In fact, they realize that they may be placing their children at risk by letting others share in their care. Second, these parents understand that in order to protect their children, they must help them to be strong. They attempt to provide their children with a variety of experiences that lead to competence and self-confidence. They praise their children and provide them with support, communicating a respect for them as competent individuals. They teach and constantly stress a sense of personal efficacy-that what the child does will make a difference, that the child can meet and overcome life's challenges. Third, these parents take a proactive stance with their children. They explain danger to their children and encourage them to avoid it. They teach children to be prepared, to think ahead, to be vigilant, and not to be caught unprepared.

Below are samples of the parents' statements on these issues: "No way would I send my child through these buildings, out of these buildings at 5-years-old. It's the truth. So many kids get snatched off.... Not only will somebody snatch them, the older kids, they take their money. They beat 'em up. All kinds of things.... Maybe I'm over-protective. I don't know. That's just my opinion. Mine wouldn't be doing it." "She been wanting to come home by herself. Like I maybe let her get a little head start because she thinks that she's doing something big.... I always tell her, 'Jeanetta, if I'm late, don't just stand in a lonely spot.' A pervert looks for kids that are alone. Don't just stand in one spot. Start walking toward home. Cause I'll meet you before you get home.' Sometimes I let her make those steps. Because sometimes she thinks that she has done something so grown. Believe me, I be on her. Four, five pairs eyes be on her." "Like Maurice a couple of times, I mean he'd say, 'I want to go to the store by myself. I want to go to the store by myself.' I let him go to the store a couple of times by himself, but I was, like, hiding, watching. And I mean, he was prepared. He know how to watch before he crossed the street.... Look out for the cars. Look both ways. All this. But I really wanted to see could he really do it. But I was right there ready to holler. He went to the store by himself. I was right there. He didn't see me though." "And as far as aunts and uncles, I taught her that they don't suppose to touch you in certain places. Don't sit on no man's lap, because men do get stimulated. They might not do it intentionally. And women too. I taught her don't sit on peoples' laps. You sit on mine, her father's, or grandma's."

These data suggest that many inner-city parents have deep concerns about protecting their children from danger. They have accepted responsibility for protecting their children, but need support in this task. Programs working with families in dangerous

communities clearly need to work to provide families with safe havens in which their children can be temporarily free from the threatening aspects of their community life. Such safe havens should include not only good early childhood education programs, but drop-in centers for parents and young children. Additionally, programs need to work with parents, helping them to understand how the dangerous environment is affecting their children and may be altering their priorities as parents in ways that works against the long-term goals they have for their children. Finally, and most importantly, dangerous environments must be transformed. Communities need to eradicate the toxic elements in their midst -- a daunting task requiring increases in commitment to positive social change within inner-city communities, as well as major social changes in the broader society which would impact on the families, that provide access to decent health care, quality education, and employment for all American citizens.

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Children At Risk of Maladaptive Parenting, Child Abuse, or Neglect: Longitudinal Changes in Their Family Functioning

Catherine C. Ayoub, John B. Willett, David S. Robinson

In 1989, approximately 2.4 million cases of child abuse and neglect were reported to child protection agencies throughout the United States (Daro & Mitchell, 1990). Beyond these reported cases, the number of families in which there is sizable potential for child abuse is estimated to be between 6.7% and 10% of the population (Browne, Davies, & Stratton, 1988; Ayoub & Jacewitz, 1982). One strategy for reducing child maltreatment is to develop and implement innovative prevention programs for families who appear to be at risk of maladaptive parenting and consequently have increased potential for child abuse or neglect (Gray, Cutler, Dean, & Kempe, 1977; Ayoub & Jacewitz, 1982; Olds, Chamberlin, & Tatlebaum, 1986; Wolfe, Edwards, Manion, & Koverola, 1988; Kowal et al., 1989). Our research builds on the work of Ayoub and Jacewitz (1982) and, by providing a rich clinical description of the at-risk families, extends findings that we have presented in a recent paper (Willett, Ayoub, & Robinson, 1991). In our work, we address two broad questions: How will the functioning of different types of families change during treatment? Will one class of families improve rapidly with treatment while another remains stable, or will it decline despite the best the program can offer?

METHOD: All families (N=172) who participated for at least three months in Project Good Start between July, 1984 and December, 1986 were included in the current study. Project Good Start is a broad-based secondary prevention service developed under the auspices of the Massachusetts Society for the Prevention of Cruelty to Children. Intervention is home-based and designed to enhance parenting skills, generate community networking, and link the mother, her partner, and her children with necessary services. Licensed social workers provide supportive therapy, case management, client advocacy, and community service referrals. Families are identified during child-bearing, using clinical criteria that included biological, psychological, social, and interactional alerts (Ayoub & Jacewitz, 1982). The majority (58.2%) of referrals were received through the maternity units of eight local hospitals. Other referrals were accepted from early intervention programs, community health clinics, social service agencies, visiting nurses associations, and self-referrals. Families participated on a voluntary basis and received services free of charge. No family involved with a protective service agency for active abuse or neglect was accepted.

Mother's average age at entry was 22.5 years; 36% were teenage mothers, and over 75% were 25 or younger; 55% were single parents. Approximately 44% of the sample were White; 31% were Hispanic; 9% were Portuguese; and the remaining 16% were Asian or Black.

Using the Family Function Scale, Project Good Start social workers rated family functioning monthly on a scale from 1 (completely dysfunctional) to 7 (completely functional). Across families, between-rater consistency ranged from .83 to .97.

The Family Problem Checklist was used on entry to record client family problems that were viewed as potential obstacles to adequate functioning. The 75 items on the checklist describe social difficulties, personality traits and attitudes, infant and child characteristics, and situational crises. A preliminary investigation was carried out to determine whether family problems clustered

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together in a substantively meaningful way. Forty problems were selected and sorted into three composites that represented client families along the dimensions of family violence/child maltreatment, distressed parenting, and handicapped child.

RESULTS: The median family functioning on entry into the Good Start intervention was 5 (upper quartile = 4, lower quartile = 5), suggesting that the average family was at risk for maltreatment. During treatment, the functioning of many families changed, and there was wide variation in the monthly rate of change across the families. Nine out of every ten families had estimated monthly rates of change between -.30 and +.43; 37 families did not change at all. Nevertheless, over all the sampled families, the median monthly rate of change in family functioning was very close to zero (median rate of change = .01), indicating that although both functional and dysfunctional growth occurred, there was a slight tendency toward the improvement of function. The duration of the treatment is an indicator of exposure to the intervention. Although the median time in treatment was eight months, there were families in the sample who spent as little as three or as much as 30 months in the program.

In our analyses, we classified families into five homogenous groups. Out of the 172 families in the sample, we have labeled the first group of 45 families as "situationally stressed." They are reacting to acute situational stressors, accentuated by the crisis of parenthood at entry into treatment. Almost two-thirds of the parents in the situationally stressed group are single, and more than half are teenage. In general, these families are suffering from financial hardship and have limited support systems. Their histories are absent of inter-generational problems, marital strife, chronic emotional difficulties, past family violence and maltreatment. Situationally stressed families tend to enter the Good Start program functioning at a high level and suffering almost no problems of distressed parenting and violence/maltreatment. They tend to stay in treatment about eight months, and their family functioning increases more rapidly with treatment than among any other group in the sample (monthly rate of change = +.01).

We have labeled the 20 families in the second group as "chronically stressed." They are also struggling with the developmental crisis of parenthood, as well as significant financial problems, and have little social support when they enter the Good Start Program. Almost 50% of the families have only a single parent, and one-third of the parents are teenagers. However, unlike situationally stressed families, these families are likely to have at least one additional chronic stressor that increased the day-to-day tension on the family system, the most common being ongoing difficulties with their intimate relationships or a child with a chronic illness. Chronically stressed families may have approximately one problem of distressed parenting and two problems of violence/maltreatment. They do not have low self-esteem, despite their chronic stressors. Chronically stressed families enter the program in considerable family disarray (median entry-level functioning = 4), and because their family systems are disorganized, they do not follow through, even with outside support. At times of crisis, the chronically stressed family's behavior may be unpredictable and the parent's judgment impaired. Chronically stressed families stay in treatment for about eight months and their family functioning improves slowly over time (monthly rate of change = +.005).

The largest group in the sample is made up of 87 families with significant signs of "parental emotional distress" on entry into the program. Emotionally distressed families share financial burdens, little relief from child care, and limited social supports of situationally and chronically stressed families. The group includes a large percentage of single mothers (42%) and teenage parents (41%). In addition to these shared problems, parents in this group have emotional difficulties, including low self-esteem and depression; they are lacking in basic parenting skills, and more than one-third of them have members of their extended families who are problematic or deviant.

Emotionally distressed families seem to enter Project Good Start at a level of functioning that requires ongoing outside support and direction if the family is to maintain adequate functioning. However, once offered support, emotionally distressed families can maintain their well-being. Families in this group exhibit three of the five distressed parenting problems, on average, and they also tend to suffer two problems of violence and maltreatment. Change for emotionally distressed families is very close to zero, a finding that may be a consequence of the long term nature of their multiple emotional difficulties. They stay in treatment the longest of any group (10 months).

The 12 families in the fourth group suffer from multiple problems and fit the description of "multi-risk" families (Cicchetti & Toth, 1987). Their individual and family crises are multiple and of complex causation. Many of their difficulties are of a critical nature and of long-term duration. These families have a variety of difficulties in the realms of individual emotional and family problems, history of violence, and disturbed parent-child relationships. They share common problems with some of the other groups, including individual emotional and family problems. For the multi-risk family , individual emotional problems for either or both parents usually include low self-esteem and depression; additionally, one-third of the parents are substance abusers. Family problems are also commonplace with multi-risk families, and include marital and partner problems, with one-third of the couples reporting spouse battering. Their extended families also create tension rather than provide support, because they are conflictual or deviant in their behavior. A number of parents in this multi-risk group of families were abused as children, and many have a history of abuse within their present homes.

In contrast to the families in the previous three groups, the multi-risk families are engaged in specific conflicts with their children. These parents see their children as difficult and different, and they have unrealistic expectations of them. Emotional abuse of the children is common in half of the multi-risk households. Multi-risk families seem disorganized at entry, and their functioning seems to be deteriorating. They can follow through and meet their own needs and those of their children only part of the time. A

number of multi-risk families are avoidant and unwilling to engage in intervention. On average, the multi-risk family has four out of five distressed parenting problems, and seven violence/maltreatment problems. The rate of change in the family functioning of multi-risk families is primarily negative, despite program intervention (-.08). Keeping multi-risk families interested in treatment is also difficult. They stay in treatment about seven months.

This last group consists of only four families. However, it is a group quite distinct from the others. These families are not only multi-risk, they are also extremely violent, toward both other adults and their children. They tend to use violence to meet their critical needs. Multiple situational, individual, family, and parent-child relationship problems place the violent multi-risk family at the highest risk for child maltreatment and at the extreme for dysfunctional family interaction on entry into intervention. These violent multi-risk families are all teenagers. Three out of four of the teenage couples are married. They share financial problems with the other groups, but are not isolated or limited in their social supports. On the contrary, they seek out family and friends who live deviant lifestyles. The young parents in the violent multi-risk families have many individual emotional problems. They suffer from low self-esteem, depression, and limited parenting skills, as well as acute anxiety and violent temper outbursts. Three out of four of the parents are substance abusers. There is also an adult with chronic medical problems in each violent, multi-risk family; however, these families also have histories of medical non-compliance. Other family difficulties include both problematic extended families and histories of spouse battering.

The parent-child relationships within the four violent multi-risk families are highly conflictual and disturbed. Parents and children complain of problems with discipline, and the children are frequently subjected to harsh or inappropriate punishment. Children are often in conflict with their parents and have diagnosable emotional problems. They are seen by their parents as difficult. The violent multi-risk parents admit to not wanting their children. Additionally, their children suffer from poor hygiene, poor nutrition, and are frequently physically and medically neglected when they enter treatment. Over 25% of the children have had a serious accident in the six months prior to entry into the program. The rate of change in family functioning is even more negative than the rate of change in multi-risk families (-.40), but their length of stay in treatment is similar (seven months).

DISCUSSION: There is considerable variation in the nature of families identified as "at-risk" of problems in parenting and child maltreatment, based on entry characteristics, monthly change in family functioning, and duration in treatment. The five family groups we have identified exemplify the diversity of the at-risk population.

A major implication of our research is the need to distinguish among families who, on entry into a secondary intervention program, exhibit varying combinations of potentiating factors. Our categorization of families is not intended to be universal or invariant, but it does represent a continuum of family difficulty. Families presenting with depression or withdrawal and low self-esteem, along with limited parenting skills and unrealistic expectations of their children, are most likely to show little change in treatment. When these families also experience spousal violence, substance abuse, a history of parent/child conflict or past maltreatment of siblings accompanied by specific conflictual relationships with one of their children (including difficulties such as harsh punishment, seeing the child as a problem or as different, using the child as a scapegoat, or having trouble with discipline), their tendency to deteriorate is even greater.

There appear to be salient groups of potentiating factors that interact to increase vulnerability or ameliorate risk. However, there are also characteristics commonly identified as "risk factors" by other researchers that are present across groups that may identify at-risk families as a whole, but do not seem to differentiate the family groups based on the nature of their monthly change in family functioning or their duration in treatment. All of the family groups described here contain a sizable number of teenage parents, single parents, or parents who are suffering financial or employment stresses.

There are important differences in the interaction of potentiating factors within the family groups that distinguish them from each other. It is only the multi-risk and violent multi-risk families that show significant difficulties in the parent-child relationship. These are also the two groups of families that continue to deteriorate for at least the first 20 months in treatment (see Willett, Ayoub, & Robinson, 1991, for further details). Based on these findings, a two-tiered approach to the identification and treatment of at-risk families is supported.

The challenge for both the family and the provider is to maintain the treatment for a long period. The most difficult families are often the ones who are seen as "failures" in short-term treatment programs that may simply be setting them up to fail. Unfortunately, with the reduction of federal and state aid, attempts to provide "brief" interventions have proliferated. Our findings argue against a "quick fix," and suggest that continuous long-term early intervention is one way that improvement in family function can be ensured with families at serious risk of maltreatment.

It is clear from these analyses that severely dysfunctional families are being identified and included in secondary prevention programs. In these programs, the child's safety should be carefully monitored in families that show continuing high levels of dysfunctioning, particularly in those that present or develop conflictual relationships. Protective service referrals should be encouraged when needed.

Intervention with families must also be varied and individualized to meet the prominent needs of each individual family. Perhaps treatment planning for parenting education should be carried out with a family's entry-level family functioning, distressed parenting, and violence/maltreatment data in mind. By focusing on the factors that seem to differentiate the groups (such as parent-

child conflict, individual emotional problems, and spousal violence) rather than dividing families along less salient demographics (single parents, teenage mothers, mothers of premature infants), critical treatment orientations can be more readily developed.

An understanding of the heterogeneity of the at-risk population should be useful for administrators and program planners. They can now consider the specific entry characteristics of the clients they serve in order to better estimate ways in which they wish to allocate resources and measure "success." If a program is serving many violent and non-violent multi-risk families, the expectation of positive change with only a brief intervention is unrealistic, and the goal of having no child appear maltreated during the course of the intervention may also be unattainable. On the other hand, if programs exclude multi-risk families, they should not claim that they are serving families at the highest risk for child maltreatment.

We have demonstrated the beginning of the development of a transactional model of assessing families at risk of child maltreatment through the exploration of the heterogeneity of families at entry into a secondary prevention program and the impact of the combination of potentiating factors on their change in family functioning and duration in treatment. The need to develop different assessment and treatment strategies for this heterogenous population is clear. Future longitudinal studies of this population will add greatly to the quality of intervention, evaluation of program effectiveness, and ultimately to the well-being of families and children at risk of maltreatment.

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ROUNDTABLES

Roundtable 200 ASSESSMENT ALTERNATIVES IN EARLY CHILDHOOD

Chair: **Samuel J. Meisels**; *Discussant:* **Susan Bredekamp**

Overview of Issues Regarding Assessment Alternatives *Samuel J. Meisels*

In this roundtable we are going to share with you the work that is in progress in developing assessment alternatives for preschool and for kindergarten. I am joined by a wonderful panel. After myself, you will hear from Dorothy Steele, an advanced doctoral student at the University of Michigan. Formerly, she has been a director of child care programs in Seattle, Washington, and has been very active in the accreditation process and has published in that area with NEUIC. She has experience with the public school systems in Seattle and Ann Arbor, and is working very closely with me on coordinating the assessment alternative project that we will be telling you about that we are doing out of Ann Arbor. Also with us today is Tillie Bayless, who is the educational specialist at the Head Start Resource and Training Center, at University of Maryland in College Park. Tillie is going to share her perspective on assessment as it is taking place these days, particularly in Head Start. And the last member of the panel, our discussant, is Sue Bredekamp. She is public policy director at NAEYC, and has been very actively involved in trying to develop meaningful and humane approaches to assessment and intervention in early childhood.

I will begin by talking with you in general about some of the issues having to do with assessment in early childhood, and then present a little bit about what Dorothy and I are doing in our assessment alternative project. My purpose today is to try to give you some theoretical background about assessment alternatives -- performance-based assessments, rather than typical norm-based assessments. Dorothy will fill in with some specifics about the pilot work that we have been doing and will allude to the data collection that we are planning for next year. During the discussion, we can go further into this.

An advertisement for a new early childhood assessment system, put out by CTB. McGraw Hill, appears almost every month in Young Children. It shows a little boy scowling. I think this says something about a lot of our feelings about early childhood assessment. We feel this way because there has been too much of it going on, and too much of it has been very inadequate to the purposes that we really have and the goals that we hold to be very important to us in early childhood. A cartoon I saw recently also makes the point. It shows an employer speaking to a prospective employee and a line at the bottom says, "After 20 years of schooling, your aptitude test shows that you're skilled at just one thing, taking tests." This is becoming more and more of a worry for us. With America 2000, and with a National Goals panel that I am a member of -- the Resource Group on School Readiness -- there is a lot of assessment taking place. There is a lot more that is probably going to take place, and we are trying to do our best to make sure that whatever goes on is something that makes sense to us as early childhood educators.

The most commonly used tests in early childhood are developmental screening tests, school readiness tests, and achievement tests. I have not included diagnostic assessment instruments, which, compared to these other three kinds of instruments, are not used nearly as frequently. Developmental screening tests and school readiness tests are not really what my focus will be today. I will mention some more about school readiness tests but I want to focus on achievement tests and on some alternatives to those achievement tests. We know developmental screening tests to be brief assessments designed to identify children at high risk for school failure. A developmental screening test that identifies the children as being at risk would be an instrument that would then lead to another assessment. This would then lead to a diagnostic assessment to determine whether the hypothesis -- that the child is at risk -- is, in fact, a correct hypothesis. I think that developmental screening in its pure form is a justifiable form. Developmental screening is a relatively limited and modest, though very important preventive kind of activity.

School readiness tests differ from developmental screening instruments in that rather than looking at the potential for a child to acquire skills (which is what developmental screening is supposed to tell us), they tell us something about what a child has already acquired at the outset of schooling. School readiness tests are very extensive in number and very broad in range. They differ greatly from one another and primarily reflect specific curricula. They reflect specific programs that children are about to enter, and what they do is tell us about a child's particular preparation or readiness for that program, what the child's preparation is for that particular program or that set of skills is embedded in the readiness test. It is quite different from the developmental screening instruments.

Finally, achievement tests need very little introduction. They are a major part of the culture of America and apparently are going to be more and more a part of our culture. Achievement tests report on children's acquisition of knowledge or acquisition of skills, and they are typically intended to reflect what the child knows after a certain intervention or a certain period of time involved in a school program. The most commonly used achievement tests in early childhood are California Achievement Test (CAT), Metropolitan Readiness Test, and achievement tests. There are a large number of other early childhood assessment instruments that are achievement tests as well.

Now, what are the issues here? The one that I want to focus on is that all of these types of instruments, though less so for the developmental screening, can be used to drive curriculum. They can be used to effect what will take place in a classroom. In that sense, they fall under the rubric of what is called "measurement-driven instruction." This definition, which is from the work of George Madaus is as follows: The measurement-driven instruction occurs in those situations in which testing programs result in a narrowing of the curriculum -- a concentration on the skills most amenable to testing. There is a constraint on the creativity and flexibility of teachers and the demeaning of teachers' professional judgment. Now, the reason that this happens is because there are consequences when children do not do well on tests. These are typically called "high stakes consequences" if they result in decisions about which children will or will not be promoted. Sometimes the results of these kinds of tests are used to decide teachers' salary increases. Sometimes they are used to decide whether or not an administrator will keep his or her position. Very often they are used to decide real estate values, because people do not want to move to a community if achievement test scores were lower there than in another community. And this is not a joke.

To the extent that we have measurement-driven instruction, the tests lose their meaning. Tests are, after all, a sampling of a domain of skills or knowledge. To the extent that, instead of being a sample, they become the universe, they dictate roughly all that is taught. To that extent, they are no longer meaningful as tests of some domain of knowledge, or as proxies for something else that the child may know. Rather, they stand for what the child has been taught up to that time, and only in those particular dimensions. Does this happen in early childhood? Am I just talking about something that is more an elementary, late elementary and junior high and high school problem? Of course it happens in early childhood as well. And we know it is there. It has been there for babies as well. Trying to get babies to play with a certain mobile.

We see it in this program that Judy Instruct puts out -- Developing Beginning Test-Taking Skills. It says: "We proudly introduce a uniquely innovative program to help young children learn one of the most important sets of skills they need, test-taking." This program has two units, and is replete with Walt Disney figures. The first unit is learning basic testing vocabulary, like circle, bubble, and oval; the second is locating them on the test page -- learning row and column. I have to share with you a little book a friend of mine, Diane Dodge, sent me a couple of weeks ago. It is called First Grade Takes a Test, with pictures by Lillian Holpin, who is this wonderful, wonderful illustrator, but she did not write it. And it says, "Welcome to first grade. First grade takes a test." I will just show you a couple pages from it. On the left there, it says, "A lady from the principal's office came to the first grade. She had a big pile of papers with little boxes all over them." Then the second page says, "She smiled at the first grade. 'We have some tests for you', she said. 'Oh, good', said Anna Maria. Now we can find out how smart we are." And then this shows part of the test. "Sammy read, 'What do firemen do? Make bread, put out fires, sing?'" (Of course, I know some firemen who probably do all three of those things.) "He poked Willie. 'Firemen get your head out when it's stuck,' he said. 'My uncle had his head stuck in a big pipe and the fireman came and got it out.'" But none of the boxes said that. Clearly, there are issues here about what we are teaching children about what schooling is. My colleague at Michigan, Scott Paris, has done some research about achievement tests, and talks about them not just as having an effect on the curriculum, but also having an effect on how students learn. The students, as they are exposed repeatedly and persistently and on an annual basis to tests like the CAT, begin to approach problems in a very specific way. They listen for things in a specific way. And all of us know that some people who are in classes, even those who are sophisticated learners, know that they listen for what will be on the test. That begins very, very early. It is one of the secondary effects; one of the unintended effects of extensive assessment in early childhood. It is one of the things that we have to work against as we begin to think about alternatives to our early childhood assessment.

There are some alternatives now to using readiness tests and achievement tests for accountability -- to show that teachers are doing their job and that the program is effective. But are they doing their job? Are children learning? Are they going to be ready for school? The alternatives that I would propose to you, which we are in the midst of developing, consist of a criterion-referenced developmental checklist that should be administered at least three times during the year. It also includes portfolios of children's work gathered across the entire year, which we call work samples.

Criterion-referenced checklists are designed to chart the progress of individual children in a wide number of areas of performance. These areas include gross and fine motor skills, expressive and receptive language, reasoning and cognition, and socio-emotional adaptation. We believe that this kind of information, which can and should be collected by teachers, needs to be collected on a regular, recurrent basis. The purpose of checklists of this sort is to assist teachers in observing and documenting children's skills and accomplishments, help teachers keep track of what individual children know and what they can do, and assist teachers in planning developmentally appropriate classroom experiences throughout the year. We believe that these should take place along with portfolio collection. Portfolios constitute compilations of students' work. They display the range of a child's work and provide the child, teacher, and parents with a sense of accomplishment. They afford the teacher important information about strengths and weaknesses of the child. They help keep track of a curriculum's scope and sequence, and they provide an overview for the teacher of the quality of a child's work. Again, the functions of a portfolio are to help integrate instruction and assessment, provide students, teachers, parents, administrators, and other decision makers with essential information about a child's progress and overall classroom activities, and make it possible for children to participate in the assessment of their own work -- a kind of meta-analysis of their own experience.

To keep track of a child's individual progress and to form the basis for evaluating the quality of a child's overall performance, portfolios are a significant promise for us in the field. They are also are a significant risk. Portfolios, like many other innovations in education, are being adopted too quickly, without enough knowledge, experience, or understanding. In the work that Dorothy and I have done with several school districts, people have said that they want to collect portfolio data on their kids and then establish stanines that would show the progress of children on portfolios. Now, not only is the number of people who even know what a stanine is enormously small, but it is logically impossible to do with portfolio data, unless the portfolio consists of a whole lot of standardized information, which is not what it is supposed to be. We definitely have a long way to go on this. We have states like Vermont that are making headway, or trying to make headway in implementing portfolio assessment very, very rapidly across all school districts, although they are beginning with a sample of school districts at the secondary level. In our work on the national goals panel we are calling for a portfolio performance-based assessment as well. We also need to find ways of linking the information that is obtained through checklists and other kinds of developmental assessments by the teacher with this qualitative information that is obtained from children and that is collected and put into the work samples. That is a technical task that we are beginning in our work, a task that yet remains to be solved, by us and by others.

I want to draw this together by rapidly going through a set of concepts that would be part of the advocacy for a performance-based set of assessments, as contrasted to more typical norm-based achievement assessments. Performance-based assessments are low-stakes instruments. They are non-stigmatizing because they show the range of a child's abilities, the strengths as well as the weaknesses. The low- stakes instruments are instructionally relevant. They are based around curriculum. They show children's work as contrasted to instructionally independent norm-based measures. However, not all norm-based measures are like the CAT. There is a range there, too, but for my purposes I will just use these extremes. They are individually modifiable on the performance base, whereas it is a standardized protocol on the other. The accountability that you get in the performance base is through a great deal of documentation. You can sort out what a child has been doing over the course of a year, as contrasted to accountability by a comparison to a norm group, which is what you get in the alternative. In addition, on the performance-based, we have developmental objectives, whereas on the externally derived, on the norm-based, we see many more academic objectives. The classroom-based performance stuff is multi-dimensional while the externally derived stuff is more restricted. The classroom-based, or performance assessment, shows extensive behavior sampling, in contrast to a restricted sample of behavior in the other assessment. The classroom-based assessment is modifiable by the teacher if there are elements of that checklist that are not germane or not appropriate. This is contrasted to the norm-based assessment that is independent of the teacher, and often makes the teacher feel quite impotent.

The classroom-based work records strengths and weaknesses of children, as contrasted to an achievement and a failure. There is a lot more room for gray. There is more of a continuum in the performance-based. They are also formative and summative differences. Formative refers to information that can be used in the process to alter and modify the interventions that we are engaged in, whereas the summative simply tells us something about what was accomplished, and precludes being able to feed that information back into the process. The performance-based material should be longitudinal, as contrasted to the cross-sectional work that you usually find in norm-based measures. At best, norm-based instruments are pre- and post- measures. The performance monitors progress, as contrasted to summarizing progress. It is continuous recording, as contrasted to discontinuous accounting. It promotes dynamic change through giving information back to teachers and showing them what a child needs to work on, as contrasted to providing us with a static snapshot. The last group of these contrasts has to do with enhancing observation, as contrasted to just recording responses. The performance-based material promotes learning, we believe, rather than just simply sampling learning. It improves student motivation by showing them their work, how they have changed and how they have improved over the year. It contributes to teacher change, as opposed to imposing instructional change, through measurement-driven instruction. It is useful for parent reporting, whereas the CAT is not useful for parent reporting.

Behavioral assessment illustrates the process of growth and development as opposed to reflecting pre- and post- change. So, overall, if successful, the assessment alternative process will be a way that we, as educators, can take the assessment process back into our own hands. It is a way of giving voice to this statement. Tests do not have magical powers. Tests, of course, only have power to the extent that we attribute that power, that we grant them that, or that we cede that power to them.

The Assessment Alternatives Project *Dorothy M. Steele*

If our goal in the education of young children is to teach them to think, rather than to teach them facts, we need to reconsider what behaviors we can take as evidence that children are developing in their thinking. I suspect that many teachers who have resorted to the type of checklist that tracks the number of letters children know, the shapes children can identify and the lists of beginning sounds of words they know have done this because these lists seem like unassailable proof that teachers have taught and that the child has learned. We are beginning to understand that this type of evidence puts unnecessary limits on what we recognize children know and can do.

For example, a teacher I know told me that John, one of her children, was not ready to move on to the first grade. She described him as having a short attention span during group time. His visits, rare visits to the art area, produced sloppy work and that he cared about only one thing, war. I listened sympathetically, because my own politics keep me from admiring pictures of guns

shooting victims and planes bombing villages. But then she showed me the pictures that John had made. The detail and complexity of his pictures were amazing. The composition was even artful and the topic most compelling. What John knew about military science took concentration, conceptual complexity, and highly developed fine motor skills. Not only that, but these pictures and warplane activities provided an unparalleled opportunity for this teacher and her children to explore the important topics of life, such as conflict, power, and justice. Seeing John's work and hearing about his elaborate war play, I wondered what would have happened if the teacher had invited him to make some of his pictures in the art area. Or if she had asked him to describe his work during group time. Or show some of the books from which he had learned such detailed military information. I believe it is this pressure for teachers to prove that they have taught children the facts, recorded on standardized tests, that inhibited this teacher, and others like her, from acknowledging John's interest and abilities, thereby embracing him as an able student.

During the last school year, we have been working with 19 kindergarten teachers in seven school districts to try out these alternative assessment processes, which might encourage teachers to see children, even those like John, as able students. We asked them to select six of their students to participate with us in the project by being the object of their teachers' observations and to have samples of their work collected for portfolios. The checklist covers a wide number of five domains of learning and some specific behavioral descriptions. This checklist is a form on which to document the growth and development of the children throughout the year. It is intended to be used at least three times a year for teacher observation of individual children -- at least three times a year so that she can keep track of the children's strengths and weaknesses and modify the curriculum to meet the children's needs.

We have reminded the teachers working with us that the use of the checklist is not the same as giving a test. The behaviors described on the checklist should be easily observable in developmentally appropriate classrooms, and should be observed, for the most part, during the regular kindergarten day. For each behavioral item on the checklist, the teacher was to characterize the frequency with which the children typically engaged in this activity as not yet, sometimes, or often. These frequency descriptors prevent a teacher from basing her judgment on a one-time observation of the child, but instead on a summary of observations over a span of time.

Teachers know a great deal about the interests and skills of the children in their class, but have difficulty finding the time to observe individual children and write these observations down. In fact, how to fit the use of the checklist into a real kindergarten day was one of the important questions we needed to address this year. While we cannot boast that we know the answer to this fundamental question, we have learned a great deal about the problem and some potential solutions. One thing we learned was that teachers whose classrooms are developmentally appropriate have an easier time fitting the use of the checklist into their regular schedules. These teachers use the free-choice time of the day to observe individual children, either marking directly on the child's checklist or making notes about the child's activities on such items as post-its, a class roster, or a clipboard that lists the activities. These notes serve as reminders when the teacher is actually marking the checklist. Teachers whose classrooms are more teacher-directed and have little or no free-choice time are robbed of this important opportunity to observe what their children choose to do and how they do it.

The use of teacher aids, substitute and parent volunteers for part of the day, on a regular basis, is another way for teachers to have an opportunity to observe their children and complete the checklist. Four of the districts we have worked with provided substitutes for those teachers participating in our project. Though this sounds like a radical notion, we hope to demonstrate next year that providing substitutes not only fails to fit into the radical category, but is substantially less costly in both time and money than the use of standardized tests. Our work with these teachers uncovered another barrier to the easy adoption of alternative assessment processes. The teachers in one district, though offered three days of substitute help so they could make classroom observations, chose to use this help only once. When asked why they turned this help down, they said that they hated to leave their children with strangers and that there was too much to do and too little time in which to do it. Although these are important considerations, it is my guess that the reasons these concerns took precedence over giving themselves time to observe and record what their children can do is that these behaviors have been so long devalued by other teachers, principals, and parents that these teachers could not take the offer for substitute help seriously. On the other hand, a teacher in another district who refused to use the checklist, saying that it would take too much time away from teaching, became one of its biggest fans. She said that the items in the checklist validated the importance of activities such as art, block building, and sociodramatic play. It reminded her of the need to make more opportunities for these kinds of activities available in her classroom. In fact, because of the list of activities in the checklist, she instructed her chapter one assistant to give up the regular letter drilling with her students and use finger paints, other art materials, and games during the pullout sessions with the chapter one children. This teacher's portfolio collections were among the richest of all the teachers. They included telling photographs of children playing office, building an intricate structure with plastic cups, and reading to their dolls. Also in her portfolio were the children's fantastic, wild things creations. These were beautiful collages that were not of the usual precut, prescribed art products found in many of the other teachers' children's portfolios.

Time was the biggest barrier for teachers in observing and recording student growth in the checklist. Time was also an issue for teachers in the portfolio collection process. But the mechanics of managing portfolio collection were so new to teachers that this first year we dedicated to working with teachers on answering the following questions. Again, we cannot claim we were successful in fully answering all of these questions. But we have learned a great deal about how to do this in kindergarten classrooms. First, we began to answer the question: What kind of work done by kindergarten children can be collected in a portfolio? Because so much of

the important work that kindergarten children do is not recorded on paper, this was a challenging question. With the help of these teachers, we have come a long way in describing the kinds of work that are an authentic part of a developmentally appropriate curriculum, and can become a part of a portfolio collection. We have a list of suggested items for the portfolio. This list is made up of examples of work typically done in a kindergarten classroom.

What we have learned is that there are some essential elements to the portfolio process. First, children need to be involved in the process of selecting from among their pieces of work those few items that would be kept in the portfolio. Teachers can help children keep their samples of work in a folder for a week, and then give them time, say on Friday, to look through their work samples to choose what will go into their portfolios. One teacher we worked with gave her children a portfolio divided into three sections marked, Hard, Easy, and Fun. Each Friday, they would review their work from their work sample collection and choose one item for each of these three sections of the portfolio. The children worked in small groups at their tables, talking with one another and with the teacher as she went from group to group. Although this was not a kindergarten class, but a combination first and second grade, it does, however, serve as a model that might be modified for younger children. The important idea here is that children can participate in the reviewing process of their work. If they do not select work that the teacher feels is important, she can also add work to the portfolio. Each week, there should be at least one item chosen for the portfolio. Every item put into the portfolio should be dated and labeled, telling who chose the piece and on what basis the selection was made. For example, teachers might direct their children to select work for the portfolio that is "something I'm most proud of." Or, "something I'd like to work more on," or "something I've never done before" that they might want to demonstrate.

We have also learned that there must be a core group of items that each child puts into the portfolio and that certain of these items need to have multiple samples so that the child's growth over time is evident. For instance, a self-portrait of each child might be done and entered say, three times, over the year. Also, examples of other items that might have multiple samples would be illustrated stories, number writing, sections of me books, and that kind of thing, so that you can see how children are doing similar work over the course of the year's time. The important role that photographs can play in documenting children's interests and skills became abundantly clear this year. In one district, three teachers did not have access to a camera during the first part of the year. When they finally got their cameras, their children's portfolios literally bloomed with images of what their children did. Tape recorders are also useful tools for preserving children's story reading, poems they have learned, or songs sung by the class members.

An important issue in portfolio management is how teachers store portfolios in crowded, busy classrooms. The teachers who worked with us collected children's work in a number of ways: in manila folders, three-ring notebooks, accordion files, or large folders created from pieces of laminated construction paper. We will continue to work with teachers to develop this next year. The essential considerations in choosing how the portfolios will be managed is that the process should be comfortable for the teachers, that the students should have access to their portfolios, and that the items collected in the portfolios should be dated and protected in a somewhat systematic manner.

In summary, this year we have learned that checklists and portfolios can be a valuable tool for the evaluation of children's growth and development. The checklist documents the growth of individual children throughout the year, and their portfolios give us a broad, qualitative view of that child's work. We can also see that the checklist and portfolio complement one another, giving us a more elaborated picture of each child. For instance, in no case did we see what seemed to be outstanding checklists accompanied by portfolios that were poorly developed. We believe that the checklist, portfolio, and teacher's knowledge will give us a much more complete and developmental view of the child's progress throughout the year. Our goal for next year is to create a student profile that uses the information on the checklist and in the portfolio, so that this information can be summarized and aggregated for those outside the classroom. Therefore, the work that gets demonstrated to the outside world is not determined by the need to make the profile, but the profile comes as evidence of work done on the portfolio and the checklist.

Assessment in Head Start *Tillie Bayless*

I am pleased to have been invited as a member of this panel to talk about child assessments in the Head Start program. I want to say at the beginning that I will not be commenting on developmental screening tests, diagnostic assessment tests, and/or intelligence tests. I will be talking about those instruments used to assess the ongoing development of children in the Head Start classroom.

Some of you may remember that the 1960s was a time of increased social unrest manifested by looting and rioting in the inner cities. Michael Harrington's The Other America pointed out that an estimated one-fourth of the American people lived in poverty. President Johnson began a "War on Poverty." Head Start was the ammunition for interrupting this cycle among America's poor families." Head Start was designed as a comprehensive program that would address the needs of the whole child and would be tailored to fit local community conditions. Thus the innovativeness of Head Start was born and the education, health, mental health, nutrition, parent involvement, and social services components instituted. Today Head Start serves almost 600,000 children.

It is indeed appropriate to discuss the assessment of young children in Head Start, for this program's near demise was a result of performance "assessments" of Head Start graduates. The much quoted 1969 Westinghouse Report, which found that the significant IQ gains made by children in Head Start (the first eight-week summer program resulted in IQ increases of 10 points) were negated by the third year of public school, had a tremendous impact on the curriculum and assessment of Head Start children. Head

Start teachers still anguish over readiness and strive to assure that their children "know the basics" required for acceptance into public kindergarten. Perhaps it was the Westinghouse Report that caused researchers to begin to look at factors other than IQ as a barometer of potential success in this world. Later studies revealed that the rapid rise in IQ scores of Head Start children did not necessarily represent a change in cognitive ability, but rather change was due to increased motivation and interest in learning. If not IQ, then what do you measure?

The overall goal of Head Start is to bring about a greater degree of social competence in children of low-income families. By social competence is meant the child's everyday effectiveness in dealing with both present environment and later responsibilities in school and life. Social competence recognizes that a child's ability to learn is dependent upon her basic needs being met, including her health and nutritional needs and having her parents involved in her education. If the curriculum offered in Head Start programs addresses the goal of social competence, then should not Head Start programs be about the business of measuring children's level of social competence? A staggering amount of effort was involved in an attempt to design just such an instrument. This attempt, known as the Head Start Measures Battery, came to an abrupt halt when funding was greatly reduced during the 1980s. Unfortunately, that part of the battery project that survived was the cognitive domain. This battery is not widely used by Head Start programs nor is it highly regarded. There is no single instrument used uniformly in Head Start programs. Indeed, the Head Start Performance Standards do not require that a particular, strategy, instrument, or observation procedure be used. These standards require procedures for on-going observation, recording, and evaluation of each child's growth and development for the purpose of planning activities to suit individual needs."

How, then, do Head Start programs evaluate their children's progress? In order to respond to the question, I conducted a very informal survey of the 170 education coordinators in Region III. This region, with its five states and the District of Columbia, includes rural, mountain, coastal, suburban, and urban areas. It is a composite of the country as a whole, and I see it as a representative cross-section of the Head Start population. The greatest number of programs checked that they used observations of children; about 70% also used anecdotal records. Along with these informal recordings of children's work, approximately 49% of the programs used some form of standardized assessment and 51% used a checklist. Although a few programs only assess their children in the beginning of the year, most complete an assessment two or three times a year, and about 10% of the respondents assess their children more than three times and/or in an ongoing fashion.

Head Start programs use a variety of methods and instruments to evaluate the developmental growth of their children, including standardized tests. There has been a great deal of discussion among experts on the appropriateness of standardized tests for young children. There are several reasons why standardized tests are inappropriate for Head Start children. First, tests not normed on Head Start populations will not provide accurate assessments of this population. Further, young children, including Head Start children, are not good test takers. They have not refined the skills necessary for this task, i.e., they are not good managers of visual discrimination, sitting still, following verbal directions, and they are easily influenced by the tester. No test exists that is culturally fair to the many different cultures of our nations families. Additionally, since 1977, Head Start has enrolled children with disabilities into the mainstream of their classrooms. Which one standardized test would be appropriate for these children, too?

When we focus on the acquisition of specific skills we are not helping young children develop a love for books and reading but are teaching empty reading skills; we are not fostering an understanding of mathematic relationships, but are developing empty math skills. In our eagerness to demonstrate the acquisition of skills to be tested we destroy children's dispositions to use the skill. We forget that the measure of a school's worth is not how students score on standardized achievement tests but rather the learning they can display in authentic or real settings.

Standardized tests are frequently administered two or three times a year. If the purpose of assessing/evaluating young children is to find out what they know, is testing several times a year the best method? Research has shown that the children who enter Head Start with the greatest deficits make the greatest gains. Should we spend time assessing what Johnny knows today when it will not be what he will know tomorrow? Today Johnny does not know how to cut with scissors. Tomorrow he does. Today, Sally can not pull her zipper up. Tomorrow she proudly shows you how she can do that task. Any one measure of performance at any one point in time does not provide a picture of an entire individual. I am concerned that sometimes inaccurate information is entered on children's forms. During evaluations of individual Head Start Programs a reviewer assures that there is indeed an assessment of each child in that child's folder. One such reviewer checked what was on some assessment forms and found three children had learned to lift the toilet seat before urinating. Great, except that these assessments were on girls. Other misuses found included not knowing what skills are developmentally appropriate for young children and planning inappropriate learning tasks for them. Several individual plans for young children included "tying shoes" a 6-year-old task. This problem, I am sure, is not unique to the Head Start program and suggests another concern of using inappropriate tests -- the test becomes the curriculum. This is not as it should be, especially when the curriculum is inappropriate. Furthermore, what a waste to spend an entire program year helping children learn to name colors, shapes, letters of the alphabet and numbers, and to write their name when they have the whole world about which to learn. When we become too precise about facts to be remembered and outcomes to be produced we prohibit children's genuine understanding and transfer of learning.

The 1991 Head Start income guidelines for a family of four is $13,400. This low income by itself puts considerable stress on families as they attempt to survive in our expensive, commercial society. Further, Head Start eligible families may also be homeless or

inadequately housed, victims of substance or other abuse, single and/or teenage parented, inadequately nourished or clothed, and lacking necessary medical and dental care. Standardized testing of these children, comparing their abilities with those of their more affluent peers, explaining their scores in percentiles (which may or may not be understood by the parents), adds to the stress these families are already experiencing, further convinces them of their inability to improve their social standing, and -- maybe the greatest damage - does not encourage them to view their children as capable learners. Assessment information should be used to provide information on children's interests, personalities, and abilities.

Decisions about children's enrollment, academic placement, or retention should not be based on one method of evaluation. Our evaluations of children should provide information on our curriculum and teaching methods -- are the children learning from our methods of presentation and do they foster parent involvement? What we have done well in Head Start is to champion developmentally appropriate practice and parent involvement. We want to keep these as our strengths as we refine our assessment methods. Are there alternative methods of evaluation appropriate for our population? The position statements of assessments of both NAEYC and SACUS support the use of a portfolio and checklist. They agree that a portfolio should include a wide variety of the child's work samples, including their beginning attempts at writing, stories they have dictated, audiotapes, ongoing recordings of children's reading, teacher observations, and either informal notes on the child's classroom interactions or more formal records of activities and progress. Checklists and inventories reflect teacher observations of children's interactions with their environment and assure observations over a wide domain, including social, physical, language, intellectual and emotional; as well as parent conferences/home visits. The parent's perspective of the child's growth and development and behaviors is critical to the child's assessment.

The portfolio and checklist presented here today are in concert with these recommendations and appropriate for Head Start children. Each Head Start child interacts in some way with the environment. These interactions demonstrate a child's interests, skills, knowledge, and abilities. As they are included in the child's portfolio, the portfolio becomes an evaluation of the child's performance. Portfolio collection then allows for ongcing observations of a child's development and for ongoing curriculum changes that reflect this development. As suggested by Dr. Meisels and Dorothy Steele, collecting children's work in a large packet for a period of a week or more and then asking the child to select items from the packet for the portfolio will develop the child's ability to critique his/her own work. A valuable lesson to learn indeed. One very positive aspect of collecting samples of a child's abilities and interests is that parents can be involved in this activity. Children and parents could be encouraged to contribute samples of the child's activities at home, including books read, "remarkable utterances," places visited. The list is endless. What a wonderful opportunity to truly involve parents in appreciating and learning about their child's developing skills in a positive and stress-free manner.

The portfolio method of evaluating children is also appropriate for Head Start home-based programs. In the home-based option home visitors visit each family once a week for approximately one and a half hours, focusing on the parent as the prime educator of the child and helping the parent refine his/her skills as a facilitator of development. The same materials appropriate for portfolios in center-based programs would be appropriate in home-based. Home-based parents would be involved in using the materials to understand their child's developmental pattern, plan activities in the home based on their child's interests and abilities, and complete the checklist on their child -- a real opportunity for the parent to understand growth and development as it relates to their child.

One concern about collecting material for a portfolio is that over-zealous teachers (and perhaps parents, too) who want to show what their children really can do will interfere with the children's work. For example, when children are at the easel or drawing on paper, the teacher may be tempted to interrupt the process and remove the paper when it show shapes and lines, before the child has covered the whole page "early childhood" brown. I wonder, if, as children become accustomed to making selections for their portfolio, they won't decide all by themselves not to cover designs they have made, before adding them to their portfolio and without adult interference! Suggested examples of work that might be collected as outlined in "The Early Childhood Portfolio Collection Process" include samples of "dot-to-dot alphabet letters or numbers" that the child has completed. This activity may not be appropriate for 3- and 4-year-old children. Lists of suggested materials need to be broad.

The Preschool Developmental Checklist covers all areas of children's development. Examination of the items confirms that most of them can be responded to by using the information in each child's portfolio. The checklist then serves as a guide for teachers' written observations. I would like the directions for the checklist to encourage teachers to complete them using their notes and other portfolio materials they have on the children. These observations/materials can then be referenced or attached. I would want some kind of documentation for having said a child could/could not do an item. The contents of the children's portfolio and items checked on the checklist should assist programs in making sound decisions about the learners, the curriculum, and their programs. If the curriculum being offered in Head Start classrooms is geared towards developing social competency in the children, collecting samples of children's work -- written observation/pictures of their physical, social, and emotional abilities -- should provide us with a current picture of their achievement of this goal.

Making optimal use of a portfolio will require training. Training in how and what to collect, how to interpret each child's collections, and how to translate these interpretations not only into answers onto the checklist but more importantly into a curriculum for that child that reflects knowledge of the child's interests as well as abilities. Colleges, universities, the Council for Early Childhood Recognition, the Resource Centers, and education coordinators all need to address this issue. Will there be problems for both Head Start and the children if alternative forms of assessment (a portfolio and a checklist) are all we have on the children going to public

school? I asked this question of a second grade teacher in the public school system. The answer was, yes. They want enrolling children to be evaluated uniformly using the same instrument. What each child can/cannot do in comparison with other children seems important for entry into public school and for promotion. According to Asa Hilliard, one of the problems with educators is that they have assigned genius only to the select few. Therefore, assessments are used narrowly to predict future performance, institute rigid tracking systems, and tolerate massive numbers of failures. He suggests that reform is difficult to achieve and that some educators may be concerned that greatly improved test scores will cause them to lose Chapter 1 funds. However, I do believe the pendulum is beginning to swing in the direction of appropriate assessments for young children. Some public school systems are beginning to understand that testing and tracking young children is not appropriate. Head Start must continue to be the leader in the field of early childhood education. Since 1965 we have caused educators to rethink what they know about how children learn, and we have a responsibility to continue doing so. This program will continue to address the issue of appropriate methods of evaluating children and will continue to defend what is known to the world to be good early childhood education.

I would like to close with a quote from "A Capsule Philosophy," a paper on the philosophy of education of the Early Learning Center in Stamford, Connecticut: "There is no required curriculum except as a child and a teacher construct together. There are no tests except as the child tests himself."

Discussion *Susan Bredekamp*

While I was reflecting and Meisels brought up the issue of the stanine, I thought, what I would really like to do is, start this little portion of the presentation by giving a test. I would like to really find out how many people in this room know what a stanine is? I would like to give that test in three different ways. I would like to give a multiple-choice test for identifying a stanine, in which case, you know, a lot of us would be O.K., because it would come back to us from our stat classes. Then I would like to give an open-ended question of define a stanine and see how many of us would drop off at that point. The next thing I would like to do is give performance-based assessment of how many of us could use a stanine in some meaningful way. And, again, my prediction is that we would significantly drop off. I assume Meisels would be left in the room at the end of this test. Maybe I am underestimating your abilities, and I do not mean to do that. What is becoming clearer and clearer to me is that I think that my being identified as an expert on assessment in this field tells me a lot about the level of expertise in this field. I really do know how much I do not know about assessment, and so when I think about that, I think about the fact that we really have a lot of work to do in this field. I think it is a critical issue. We are all indebted to Meisels and his colleagues, but particularly to Sam Meisels. He has been out front on helping us expand our knowledge, based on this issue, but we need more people like him -- people who really do understand early childhood, who understand child development, who are out front in developing appropriate assessments.

That is my challenge in this role that I am playing today. One of the cautions I want to stress is that we are never going to be able to continue to get resources for early childhood programs unless we can show that they benefit young children. And how can we show that they benefit young children unless we do some kind of assessment? Assessments of individual children, within our programs, that follow them over time.

Recently, the National Education Goals panel, made up of six governors, were debating what to report in measuring progress for the readiness goal. The big debate was around the fact that there is no direct measure of readiness. In fact, they had been given a number of indicators to report by the Resource Goal panel -- the panel that Meisels referred to earlier. There were indicators like the number of low birth weight babies, the access that children have to health care, the attendance at preschool -- various things like this. The governors, even the Democratic governors, were concerned about the lack of a direct measure. The Republican governors were in favor of reporting nothing on this goal, because none of the measures were direct measures. In fact, they seriously questioned the validity of those indicators. There was a long debate on whether they would want to report low birth weight. It was seriously considered that if they reported low birth weight as an indicator of not being ready for school, people would cease to try to save low birth weight babies. That was the level of the discussion.

Every one of these governors and White House representatives around this table said, "Oh, preschool attendance, we know that that works. We know that that gets children ready for school." Why did those governors say that? Because they have read the Perry Preschool Study. It is one piece of research, one piece of outcome information with which every one of those policymakers is intimately familiar. They translate it to all of Head Start, to all of preschool. But the fact is that outcomes, being able to show that this works, being able to influence policy, is critical. We have got to be able to continue to do that. I perceive some real concerns for things that are going to happen if we do not do that.

I think it is fitting that we are talking about the issue of alternative assessment here at the Head Start Research Conference, because everyone I see got dragged, kicking and screaming, into the issue of talking about testing in the first place. This was because we had disseminated our positions on developmentally appropriate practice, and although a lot of people said that they would like to do this, they also felt that they could not abandon standardized tests. There were others who felt that the Head Start measures themselves, the cognitive battery that Head Start used, were not appropriate and should be thrown out. We were not about to do that; instead, we worked to develop some guidelines for the use of standardized tests. This led us to develop guidelines for appropriate curriculum and assessment, which we have recently just published.

The work that Meisels, Steele, and Bayless have shared here today meets our guidelines. Particularly the process developed by Meisels, with the checklist and the portfolio assessment. Just going right down the guidelines, it fits very well. It is sort of reclaiming the concept of the whole child for us, because we are assessing more than just the cognitive component in this particular situation. However, I still think we need to strengthen the social competence aspect of this particular measure as well.

The teacher is the primary assessor, but the children get to participate in assessing their own work and progress. The parents participate in the process, although it is less apparent through what we have seen today. But the parents can give information that can be added to the assessment, as well as get information. I think one of the things we want to stress, particularly in Head Start, is that one gets information from parents to use in assessment, not just that one gives information back to the parents. I think that is really key. One of the aspects of that in our guidelines, in fact, says very specifically that the process that you use in assessing children and communicating with parents should not undermine the confidence of the parents in their own children and/or in themselves as parents.

These points I am making are part of the assessment guidelines, and the kind of assessment we have looked at today does reflect that. The information is collected over time. It is used to collect information about what children can do, and I think that is one of the real keys. Too often, when we use very standardized assessments, all we learn is what children cannot do. It does not tell us what they are capable of doing, and it really does not even tell us whether they do not know that. It may be just the way we ask the question. The way they were asked to respond may give us some information about whether they know they are able to do that, but we really cannot infer that. All we know is that, in this particular question, they answered wrong. It does not give us useful information for planning instruction. The one overriding criterion that we have applied in our position on standardized testing, and in our assessment guidelines, is that whatever assessment you do, it must meet the utility criterion. The utility criterion requires that the outcome of that procedure must result in benefits for children. If you cannot show that the information you are collecting is being used, then there is no point in collecting the information to plan instruction, improve the program, and/or get children specialized help. But then there is another criterion, even before that, which is: first do no harm. I think some of the kinds of assessments that were pointed out to us could very well lead to harm for children.

I had an interesting experience at AERA, for the development of the Georgia kindergarten assessment program. Georgia had been using the CAT, and then they developed their own assessment in response to a lot of criticism. It is the Georgia Kindergarten Assessment Program, and I stood there and I told them how that standardized test and that measure also met our guidelines. It was amazing how well it had been developed to meet NAEYC guidelines. The point that I am making is that you can have good measures, and you can have measures that effectively meet some standard of a profession or have been carefully devised in a way that they are to prevent harm to children and to result in benefit, and they can always be misused. I think that the biggest concern I had with the Georgia Kindergarten assessment was that if children did not do well on it they would still be retained in kindergarten. Unless we start to rethink how the instruments are used, they will never fully meet the utility criterion. And that brings me to the whole notion about assessment in Head Start.

I think we have to be very clear about why we are assessing children. What we really want with developmentally appropriate practice, and what we want with appropriate assessment, is to insure continuous progress. It is another old concept that we want to reclaim. We want to make sure that children continue to make progress through their educational experiences -- not that they are punished or are in some way harmed by those educational experiences. Where this gets really tricky with Head Start was very well clarified by Bayless. In order to get a good concept about where children end up, you have to have an idea about where they began. And the problem with Head Start is, that frequently, the children who have the farthest to go make the most progress. But unless you can give some indication of that progress, how can you assure that it will continue? I think that is really important. You cannot convince the next level that the children are going to continue to make progress, because they are going to see them where they are, not where they started.

We know that the strongest predictor of later outcomes for children is socioeconomic status. We spent a lot of money on the Commission on Children, and Rockefeller and Brazelton have just now come out with their report. And -- surprise! -- what they found was that poor children are going to have the hardest time. Head Start has been telling us this for 25 years. But what they have also been telling us is that Head Start can do a lot with those poor children. But they are still starting that race, if you will, so far behind, that to bring them up to the same point when they start kindergarten is going to be an enormous challenge. In addition, high-stakes testing programs are really onerous on Head Start. For instance, in South Carolina, which has one of the highest-stakes testing programs in the nation, they found that children who had been in Head Start were behind. It was looking bad for children in Head Start in the state of South Carolina. Sally Hardie did a very heavy job of advocacy throughout the state, convincing people that it was not that Head Start children were so far behind or that Head Start had failed, but that Head Start children had come so far and still had so much farther to come in comparison with other children.

That is one of the issues that we are going to have to really stress through these kinds of alternative assessment processes. One of the beauties of the concept that Meisels has worked on is that you can look at children over time and you can see where they were at the beginning of the Head Start year. You can follow them right through kindergarten, using these checklists, to document that progress. The difficulty comes when you have a criterion referenced, whatever it is, against which you are working, or measuring, or trying to document progress. One of my biggest concerns about the issue of readiness, and trying to measure readiness, is that we,

as a field, have not established criterion. We do not really know what it is we think young children ought to know and be able to do at 4 and 5 years of age. We do know that we do not want to label children or categorize children. Although we know a lot about individual development is, we do not know what our goals are, what we are working toward. We need to help the nation define readiness in a way that will lead to benefits for children, as opposed to harm. This is our biggest challenge as a field, and our biggest fear. It related to the points that Bayless was making about social competence. While we value social competence, we have not operationalized the definition of that. I was writing the words from Meisels' checklist that have to do with task persistence, solving problems, and negotiating social problems. Every one of these constructs can be operationalized in enormously different ways. Task persistence, for instance, is usually operationalized by kindergarten teachers as how long you can sit for group time, or how long you can sit during the workbook period. If a child cannot do that for very long, he or she is not ready for school, and is either held back or assigned to some other class. However, if we look at persistence from the evidence of their portfolios, from their block building, and from their self-selected tasks, we might see an entirely different picture, so that how we define that construct will determine how children will present on that construct. We could go through every single one of these constructs. For example, if you define social problem-solving as sharing, you are going to get a whole different presentation than if you define it as having to actually negotiate a conflict. You are also going to be able to assess it differently, depending on whether children have opportunities for social interaction, or whether the only time you are able to do an assessment is out on the playground where one child is bullying another. I have seen instruments that say, "To assess children's social interaction, observe them on the playground." The assumption is that they are not going to be socially interacting in the classroom.

I am very excited that good minds in this country are applying themselves to developing alternative assessments that are defensible, that are valid, that are reliable, and that will measure what it is we want to measure. If those kinds of assessments dictate curriculum, improved curriculum will be the result. We have to work hard on developing some consensus about our criteria. We also have to keep in mind that people can do bad performance assessment, just as they can do bad standardized testing. When we rely totally on teacher observation, we leave ourselves open to teacher bias, which in the past led to very bad things happening to young children. In fact, this was really the impetus for relying so heavily on standardized tests. This is of particular concern to us, and for the children that are served in Head Start. This is all positive, it is a step on the road that we need to take, but a lot more work needs to be done. We have to be very cautious about what we are doing with these kinds of new measures and alternatives.

AUDIENCE DISCUSSION

A question was raised about how the portfolio method could be used with preschool children. Meisels responded that there are problems with the method with younger children for obvious reasons. The work is often large and multimedia, and preschoolers often will not give up their work. These logistical problems are being considered and worked on.

Another question focused on the student profile and how it might be used for research purposes. According to Meisels, work has been going on during the past year to refine and alter these materials. A manual is being developed. The portfolio collection process will be structured more accurately with certain kinds of data collected at various points in the year. An aggregation method is being developed on the portfolio and the checklist. The Woodcock-Johnson Revised, a norm-referenced assessment, will be administered pre-post during this year. Then, at the end of the year, the shared variance between the aggregate measure and the Woodcock-Johnson will be calculated to learn about their similarities. Change may also be measured. Since this is a multiple assessment device, pre-post data from the Woodcock-Johnson may be compared with changes that are recorded on the checklist and in the portfolio. The goal attainments scaling method also will be used to aggregate and summarize change on the checklist. There will be 5- or 7-point scales in the various areas. A teacher will be able to go back at the end of the year, review her notes, checklists and portfolios on individual children, and then place children on various levels on the scales and have a profile for each. Statistical procedures on the data could then be done. Inter-rater reliability also could be calculated. Observation will be used to confirm the teacher's evidence about what she has reported on the checklist that the children are able to do. By using this method of assessing children, potentially there will be a change toward more
developmentally appropriate practice in classrooms.

A final observation was that tests seem to drive curriculum. Bredekemp acknowledged that, because there was a dearth of good curriculum for 4-year-olds, this was often the case. NAEYC's focus on developmentally appropriate practices tends to address how to teach, emphasizing process rather than content or product. Recently, NAEYC has developed some curriculum guidelines, although they are just a framework for things to be considered. It is still not clear what preschoolers ought to be learning to succeed in school at the higher grade-levels; however, according to Bredekemp, if some curriculum is not developed, commercial curriculum developers and test developers will fill the void.

Roundtable 201 EVALUATING HEAD START . . . ONCE MORE, WITH FEELING: REPORT BY ADVISORY PANEL FOR THE HEAD START EVALUATION DESIGN PROJECT

Chair: **Sheldon White**; *Presenters:* **Sarah M. Greene, Luis M. Laosa, Craig T. Ramey, Diana T. Slaughter-Defoe**

CRAIG RAMEY: The first major question is, Which Head Start practices maximize benefits for children and families with different characteristics under what type of circumstances? This is a much more refined and precise question than was originally asked in the early years of Head Start. A kind of question that has associated with it its own imperative for scale of research, for research design, and for ways to organize research, which I will comment on briefly. The second major question is, How are gains sustained for children in families after the Head Start experience? We now have in the literature a variety of studies to suggest that there are plausible, long-term consequences of participation in high-quality preschool education: reduced delinquency, reduced teen pregnancies, greater academic achievement. What are those attributable to? What are the active causal agents that are the carriers for those effects?

To address these questions we really are recommending moving away from what is a time-honored good research approach: the randomized control trial in which the same intervention is imposed in multiple sites and examined in a variety of ways. That is the standard National Institute of Health model for evaluating whether a treatment works in the real world. We do not think that it is the model to apply to this generation's research on Head Start. It does not apply because Head Start never was considered to be, and is not now considered to be, a single entity. Head Start is meant to be tailored to the realities of different communities and provided in ways that involve parents and community members in determining the form and function of what goes on. So to insist on a uniformity that allows convenient research but jeopardizes or threatens the fundamental premise, that is, of local development and local management, is not a step forward, but really a mismatch between what research can do and what program development can and should do.

What we are recommending instead is that there be a community of scholars and researchers and practitioners who are federated into a sophisticated and interactive network, using a variety of approaches, of course, that are consonant with the performance standard mandates within Head Start. Because Head Start is a two-generation program, at least in its conception, we want to know about the impact on children and their parents. We want to know how children fare in school. We want to know whether there are changes in parents' employment status, whether there are changes in parenting practices, whether there is impact at the level of daily living and impact on individual participants, not simply an examination of mean differences in large populations, but ultimately the impetus of Head Start to affect individual lives of children and participating family members. We must bring the metric of measurement back to an understanding of the degree to which there has been impact that is meaningful by society standards for individual participants.

There are really four major research directions that are being recommended here. One is that there be a greater use of longitudinal designs to look at the immediate outcomes of Head Start and that simultaneously explore the carrier mechanisms, mediating mechanisms, the causal agents that can account for changes in performance at the child and family and community levels over time. Two, we also are calling for studies that identify the truly active ingredients within high-quality Head Start programs. What specifically is it about some programs that bring about changes? Because Head Start is complex, it is quite reasonable to expect that its complexity has a direct causal impact on outcome. If that is the case, then what are the important active agents? Three, we need to study the addition of new program elements to existing Head Start programs and to determine whether adding family literacy programs, adding drug information and awareness, in fact bring about the changes in attitudes and behaviors that were intended. Last, we need to understand how it is that Head Start has its effect on how children become introduced to and interact with the public schools. How does that transition take place? What are the regulatory factors that make for success or lack of success in those situations? And, specifically, we are calling for a much greater emphasis on studies of subgroups of the populations. How do Head Start programs in their various forms affect Hispanics, and is that different from Blacks, is that different from Appalachian Caucasians, and so on and so on. There is a host of information in the literature now to suggest that family dynamics are really quite different along some predictable lines. If that is the case, then we have to understand how the program impacts.

So this report, we think, is bold in calling for a substantial change in the direction of research, bold in calling for increased allocation of resources, and bold in calling for a sustained interaction between the academic research community and practitioners in ways that will bring back information that is useful both in developing more sophisticated understandings of how development takes place and to program planners and individual service delivery people in delivering programs that are effective and cost-efficient.

LUIS LAOSA: The current resurgence of public attention on early childhood education, school readiness, day care, and, more generally, learning and development during the early years has logically led to a concomitant renewal of interest in research on and evaluation of programs and policies for children of preschool age. In particular, the U.S. Administration on Children, Youth, and Families -- ACYF -- and the Head Start Bureau have recently taken the welcome lead in exhorting the research community to focus once again and with feeling on these important issues.

Among the recent activities toward this end are the creation of this advisory panel, of the Head Start evaluation and design project, which, as mentioned by Shep White, has just issued its report and recommendations regarding future directions for research and evaluation in Head Start. Other ACYF initiatives include RFPs to conduct research and evaluation studies of Head Start and also ACYF's support, with the help of Trellis Waxler of the biennial meetings of the minority scholars interested in Head Start research. At the same time, these developments pose novel and difficult challenges for the field. And they also bring back -- this time in a different context -- older but as yet unresolved concerns. Among these challenges and concerns are those arising from the wide diversity of

the Head Start population and from the growing recognition that this diversity must be taken into account, not only in the design and delivery of services, but also in the approaches to and methods of research and evaluation. Ethnocultural and ethnolinguistic group differences within the Head Start population count among the critical sources of this diversity, since the participants in Head Start characteristically represent widely varied cultures and languages. Since its inception, Head Start has been in the vanguard of efforts to provide culturally sensitive services, aiming as it does to incorporate the cultural, ethnic, and language characteristics of children and families as an integral part of each local program.

A distinctive aim of Head Start, then, is to be responsive to and incorporate the culture of the children and their families in all aspects of the program, and, in the curricular and teaching strategies, for example, in showing respect for and accepting the child's language, etc., as indicated in the Head Start performance standards and other documents, such as the one issued by the National Head Start Multicultural Task Force. Data on the racial/ethnic composition of Head Start show that the Head Start population is indeed ethnically diverse. Yesterday, at the meeting of minority scholars interested in Head Start research, the ACYF associate commissioner for Head Start, Clennie Murphy, who is perhaps the most knowledgeable person about Head Start populations, was describing to us this growing diversity due to the expansion of particular ethnic groups, such as Hispanics, Asian-Americans, American Indians, and so forth. Now, none of these groups is itself homogeneous, so that we should be prepared to find considerable ethnic and language diversity within each of these groups. For example, the category Hispanic includes Puerto Ricans, Mexican-Americans, and other Hispanic ethnic groups. Each of these groups has its own distinctive cultural and historical characteristics and social circumstances that make it unique, although it of course shares many other characteristics. Moreover, there is significant diversity even within these specific groups. Consider, for example, the sharp contrast in the experiences and characteristics of a Head Start child growing up on the island of Puerto Rico compared with a Puerto Rican child in New York City or in New Jersey. These sociocultural contexts are likely to differ sharply, each with its own particular implications for Head Start. Incidentally, Puerto Rico, I recently learned, has more Head Start participants than most states. ACYF reports that this fiscal year there were 25,000 children in Puerto Rico in Head Start, which is about the same number as the total number of Head Start children in Illinois, Michigan, Pennsylvania or Mississippi. Yet we know relatively nothing about this population in Head Start.

As another example, consider the experiences of Mexican-American children in families of seasonal agricultural migrant workers. These are children who follow their families along with other families from state to state several months every year. Compare them with the Mexican-American child who is more permanently settled in a place like Los Angeles or San Antonio. A study of migrant children now in its pilot stage by Mary Lou de Leon Siantz and sponsored by ACYF is the type of project focusing on a specific context. This is a study of migrant children who migrate from Texas all the way up to the northeast working in the agricultural fields several months every year. This is the type of project focused on specific contexts and specific populations that should yield important contextual information.

As late as only a few years ago, the ethnocultural and ethnolinguistic aspects of human diversity were ignored and even resisted by a significant segment of the research and evaluation community. Fortunately this prevalent climate is changing, although only gradually, but in a positive direction, as reflected partially in our advisory panel report on the blueprint for future Head Start research and evaluation. To some people, no doubt, this change is as yet nothing but a shallow expression, a mere temporary desire to seize on a topic that might be considered fashionable at this time, especially if it appears to have some prospects for research funding. Nevertheless, we do see that an increasing number of Euro-American and other scholars are growing cognizant of the significance of these aspects of diversity and hence, are beginning to recognize them as, "legitimate topics for scientific research." Minority scholars, trained in research and evaluation, are contributing insightful perspectives to bear on the field. Notwithstanding these signs of progress, however, the study of human diversity in relation to child development generally and Head Start in particular is still in its infancy, and much hard work remains to be done.

Research on cultural and linguistic diversity is thus a wide-open field, although full of the most elusive nuances, difficult technical problems, and perplexing complexities. For the same reasons that it is extraordinarily difficult to conduct high-quality scientific research bearing on cultural and linguistic diversity, it is also a challenging, timely, and exciting area with great potential for contributing significantly to advancing our knowledge, and with much relevance to policy and practical applications.

DIANA T. SLAUGHTER-DEFOE: The minority scholars committee was established at some time in, I believe, the early 80s and the group was convened with support from Clennie Murphy at ACYF, Valora Washington, and Ura Jean Oyemade. Valora Washington and Ura Jean Oyemade have been longtime friends of mine because we have been dealing with matters of child development and social policy within the context of the Black Caucus of the Society for Research in Child Development for approximately 20 years. In other words, a lot of this is old hat to all of us. But I am very pleased to say that the old hat is coming out being redressed again. That is to say, many of the issues that we discussed when we were graduate students and then fledglings at the beginning of our careers, struggling to get attention in the child development and early childhood education research communities, have now come forward. And I am pleased to say that all of us have lived long enough to see this point be achieved, and I think that all of us, including our supporters and benefactors in the white majority community, should give themselves a hand.

The report is excellent. If we had had this report in the way in which it is now framed 20 years ago, we would probably not be in the situation that we are in 1991. What we now have to ask ourselves is, Has the situation changed such that it is almost too little

too late, or is there a real opportunity for mobilization for action in the future that will benefit those who are poor? Now, I am not going to answer those complex questions, but I am going to invite you to think about, as you interface throughout the conference, at least three terms: "Head Start," "intervention," and "culture." What we have not resolved within the professional child development community is the interface between culture and intervention. I think that if we had understood, myself included, 25 years ago, that array, then we would not have neglected what I am supposed to talk about today; namely, the serious consideration of parent involvement and family support.

The initial Westinghouse evaluation would have automatically included serious consideration of parents and families and their contribution both to the nature and character that the Head Start program would take in any particular region, community, or group that it was directed toward. It also would have included parents' contribution relative to the second aspect of our question -- the maintenance both for the children themselves and the adults who participated in the program. But at that time we did not have an appreciation of the relationship between culture, intervention, and any specific program. Now, it is my view that intervention addresses socioeconomic matters. The Head Start program, as an intervention strategy, has been designed and implemented over the past 25, going on 30 years now, to address a socioeconomic reality, that is, impoverishment, however it is defined, in its various aspects. The matter of culture, however, as it interfaces with intervention, has to be considered from at least two perspectives. Culture is a buffer and people create cultures -- cultural norms, cultural practices, ways of behaving, of guiding their children, of guiding their relationships. The Head Start blueprint strategy for research is a step in the direction of reaffirming those perspectives

Those of you who are in universities know -- we hire and fire and get rid of and expand, incorporate in order to create a cultural community that will enable all of us to survive and move forward. I'll bet they do the same thing in the government. Families do too. Families and communities create cultural norms, practices, ways of relating to children and ways of tutoring and supporting and encouraging them, which are designed to buffer and encapsulate and enable the children to thrive and survive within the overall cultural and social context in which persons find themselves. I think it is a fairly safe assumption that every identifiable group of persons -- what we have called subpopulations in the report -- has a culture around it which is designed to enhance and support the survival of its youngest and most dependent members.

What has to happen in an intervention program such as Head Start is to find the strengths of the cultural group -- and note that I am not just talking about culture in terms of ethnicity -- and buffer them while also identifying what it is that the group is doing that may have side effects that are adverse or inappropriate to its long-term overall survival goals. An intervention program, a prevention program, even, has no other rationale for existence. If it does not buffer the culture, if it does not translate the goals of the culture, respecting its integrity, into a utilitarian means by which the people of the community and of the culture can realize their own objectives, the intervention program has no right to exist.

Now, the reason Head Start has existed for over 20 to 25 years in spite of us in research in child development, is because those who have participated in the program decided that in some way the program helps them survive and support their children and families as they move through the life course. That is, the preventative intervention activities that are associated with Head Start -- admittedly, we do not know at this point what is good for who and why -- have a utilitarian purpose to the families and communities who participate, and that is why it is here. I am optimistic that in the next 25-year cycle we will know more about precisely what it is that the differing cultural and social groups that participate in the program across our nation have to say and experience about the program's utilitarian purpose for their own survival. At that point we will be able to make theoretical statements about the relationship between culture and intervention, and any specific useful program such as Head Start. That is what I see the blueprint providing, a means for gathering data to see whether or not this is possible.

The blueprint provides an opportunity for us to assess in depth how people will make use of the intervention to better their own lives and the lives, most importantly, of their children. Now, let me say a last comment about what it does not have in it. It is obvious to me now -- maybe it is more obvious because of the nature of my own family situation -- that poverty is an international issue. The issue of poverty and impoverishment, as it relates to changes in technology, changes in the means of production, and the implications for adult relationships within families, and for the socialization strategies, and accompanying institutional armamentarium to buttress those socialization strategies, is being addressed and dealt with in new ways all over the world. In this first conference we have focused uniquely on ourselves. We are always going all around the world focusing on everybody else. But it is very interesting to me that in the program, which is otherwise quite excellent, and I would say articulates almost one-to-one the strategy that is laid down in our blueprint, there is no reference to cross-cultural matters. What we have to understand is that what began as a Moynihan concern about the Negro family in 1965 has now been transformed not just into a national issue concerning very different and diverse people from this country, but an international issue that is worldwide at this point, relative to persons who are less well off economically, at the bottom of the strata in the nations across the world. I think that if we do our jobs well, both in terms of research and in terms of program implementation by describing the realities that we confront and by looking at how we have and have not been able to buttress the cultures of our people toward creating a more unified nation-state here, we will have something to contribute in a serious way to the situation of impoverished people throughout the world.

SARAH M. GREENE: I believe I was the only person on the Advisory Panel you could call an actual practitioner. That is, someone who works directly with Head Start children and families. I am going to pattern my talk on thoughts of how I felt being a member of

that team -- that is, Head Start centers as partners. Because of the environment and the manner in which the other panelists worked with me during that year, I felt that I was an equal partner. I think some of these types of situations are germane to what is to happen in the future with Head Start centers and programs as we get about the business of implementing the document and the recommendations that have come from one year of very, very important deliberations. I just want to say that it was a marvelous experience -- a learning experience for me. I look forward to seeing the positive results that I know will happen as a result of the commitment from ACYF and, of course, all of the distinguished panelists.

First of all, one thing that is very, very positive to all of us in the field of early childhood, and particularly Head Start, is that we were given a charge to start out with the premise that Head Start is successful and does a lot of successful things. We who work every day sometimes do not lift our head above the crises to sometimes say that and recognize that. But we started out with that premise, and, to me, that is what makes what we are talking about very, very exciting. In starting out as a partner, first of all, you certainly have to use the Head Start centers, children, and families to implement some of the short-term studies that we anticipate happening. But if you start out understanding, first of all, that we are doing something good, and that means it needs to be captured, bottled up, used with other early childhood programs, used to enhance what we are doing in future years -- that in itself is exciting! That in itself makes us want to be an integral part of whatever is going on to make this happen.

Secondly, if we do not see whatever group or whoever is going to be doing the research as intruders or inspectors, of folk coming into dissect what you do, but rather as people coming in to say, "Here's what you're doing -- that's very, very good. Let's use this as a model and use it to enhance other early childhood programs or enhance other Head Start programs that may or may not be doing the same kinds of things you are doing." As has been said throughout our year of deliberations, one thing that is unique about Head Start is that it is designed to capture the needs of the individual children and programs and environment wherever Head Start exists. And that is what makes it unique and that is what makes what we are about to embark on very, very exciting -- we can look at what is successful in one area that may not be successful in another area, and ask, Why is that? So it is important that we have a clear understanding of what we are doing. That to me will make us good partners, understanding what we are doing and why we are doing it.

The third thing is that as a result of the projected research, there will be some phenomenal changes, not only for Head Start, but for the child care community, nationally and internationally, as Diana has talked about. What kind of phenomenal changes could it mean? One: getting more specific, organizational structures for Head Start could be enhanced or changed, based on the findings. Giving one clear example: in some programs the ratio of case manager to family might be 40 to 1. In others it could be 100 to 1. Given the kind of research that I anticipate happening, there may be a study that would show -- which we all certainly believe and know -- that it is a smaller ratio that works best, where more time and attention is given to each family. Two: salary improvements. We all know that there are all kinds of motivations for why we do what we do. Head Start is a source of income for those who work in the program, but it is also a commitment to helping children and families. In those programs that do pay adequate salaries, is there a greater improvement in actual services to the children and families? What happens to those centers that strive to give the best services but are not compensated for it fairly? Will studies indicate that if we provide the kind of salary enhancement and fringe benefits we should that it will make a difference? A third phenomenal change could be evidence of things that many of us who work in programs already know. There are things that have not been measured as they relate to race relations. In my own experience in 22 years in Head Start, I think Head Start has done more in demonstrating the positive results of excellent race relations than any other group that I know about in the country.

In terms of family and the impact of working with families, most of us try to have our programs' centers located in target areas where the staff know and relate to the families on a day-to-day basis in grocery stores, churches, etc., and this has an enormous impact on families that has never been measured. It cannot be captured in the PIR and other reports that basically ask for numbers. You know how many parents come to the centers and how many are in classrooms? We do not capture the ongoing relationships that exist and have existed for 26 years of Head Start. And those kind of things, the many, many successes of Head Start parents and teachers over the years -- those folk who started, let's say, at the bottom as a volunteer and worked their way through to be directors or to have good jobs in the community -- it did not happen over one or two years.

Lastly, another change is that Head Start will again take the lead in research, as well it should, as the only nationally recognized comprehensive early childhood program. I think Head Start will be setting the pace for generations to come in terms of where we should go in the field of early childhood. And to me, that ought to make it exciting and adventuresome for Head Start programs, centers, and staff. In Head Start we work and deal with crises on a day-to-day basis, whereas in most workplaces, families, organizations, you think of a crisis as something that happens every once in a while. That means that as researchers we have got to be resilient, finding the time and the space to deal with what we have to in order to get this important research out in the field. And I know without a doubt that, as we have in the past, we will continue to be responsive to what we need to do and truly be a partner in this endeavor.

AUDIENCE DISCUSSION

The first question raised concerned NIH criteria for evaluating intervention programs. Ramey responded that the National Institute of Health model for evaluation is called a randomized controlled trial. In its simplest form, it is the attempt to administer the

same procedure in exactly the same circumstances to people in multiple sites, and then to examine whether the results are the same. That does not work for Head Start because the treatment is more complex than is used in those models, and because it violates a fundamental underlying premise of Head Start, which is that the creation of a program is the joint product of the families who participate in it and the staff who conceptualize and implement it. Therefore, a different research and evaluation model needs to be used with Head Start, one that is much more sophisticated. The theoretical background and tools are available to address these more complex research problems. Head Start had the opportunity to take the lead in conducting a new science about human development and how to enhance it. For example, the Comprehensive Child Development Project and the Head Start Public School Transition Project represent the new kind of research approach where partnerships are being developed between practitioners and scientists to answer questions both want to know. Another new approach mentioned in the Panel report is the use of add-ons, i.e., randomly assigning programs to an add-on type of intervention that would be a modification, extension, addition or elaboration of an existing program.

How the National Head Start Association could help generate and influence this new brand of research at the local level was discussed. Greene reported that during the life of the Panel, she provided ongoing information of their work to the NHSA. The leadership of the NHSA plans to identify particular programs known to be successful in various areas and disseminate that information on a local level. A strategy also will be put in place to share future research with the Head Start community on a continuous basis. She added that a most important part of the Panel's recommendations was the partnership model of research. According to Greene, local Head Start programs never before received the kind of credit that was needed to help them become equal partners in research projects.

Whether staff evaluation is part of the overall evaluation plan was questioned. Panelists assured the audience that the report addresses the need to examine staff training and qualifications, salaries, benefits and staffing patterns as part of the plan.

Panelists addressed the question of what assurance there was that the Advisory Panel's plan will actually be implemented. Several strategies were mentioned. The Minority Scholars Committee has changed its name to the Head Start Scholars Committee for Culturally Diversity Research. The group plans to expand its membership to those interested in the interface between culture and intervention, and help to implement the plan. In addition, the Advisory Panel was given assurances by ACYF that there would be the necessary resources to implement the plan. To begin with, a second panel will be formed to extend the process put in place by the first Advisory Panel.

Roundtable 202 PROMOTING SUCCESSFUL TRANSITION TO SCHOOL

Co-Chairs/Discussants: **Ethel Seiderman, Barbara E. Shaw**

Introduction and Overview *Marion O'Brien*

The child's initial entry into school is an especially crucial transition, with life-long implications for the individual's achievement and socio-emotional development (Alexander & Entwisle, 1988; Ladd & Price, 1987). Children who fail to adjust to the demands of school may set a pattern of failure that persists for many years. Because school performance is cumulative, difficulties in the early years of school are magnified in each succeeding year. For the typical child, the transition into kindergarten and then into the primary grades is uneventful and represents what Bronfenbrenner (1986) has termed a normative life transition. For a minority of children, the entry into school is unsuccessful, and the normative transition is disrupted. When a child fails unexpectedly, is placed in a special classroom, or is unable to negotiate the intricacies of written language, the child and family experience a non-normative transition. Because non-normative transitions are associated with high stress and emotional conflict, they affect the functioning of the family as well as the child, and therefore influence future development both directly and indirectly (Rice & O'Brien, 1990).

In recognition of the importance of school entry in children's lives, several initiatives to help children adapt successfully to school have been pursued by educators. In this paper, three general approaches to enhancing success -- early intervention, school survival skill training, and delay of school entry -- will be discussed and evidence for their effectiveness will be reviewed.

The past 30 years have seen an emphasis on early intervention programs, most notably the Head Start program, whose primary goals include preparing children for success in school. The overall effectiveness of such programs has generally been impressive (e.g., Bronfenbrenner, 1974; Clement et al., 1984; Lazar & Darlington, 1982; Wasik et al., 1990); however, evaluations have been based primarily on long-term achievement and continued placement in regular versus special education classrooms.

Few studies have directly addressed the issue of the role of early intervention programs in making the initial entry into school more successful for children. In an evaluation of the success of the Brookline Early Intervention Program, Pierson et al. (1983) report observational data showing that participants had better social skills at the time of kindergarten entry and that they were more involved in classroom activities than their age-mates who had not experienced the program. Disturbingly, Pierson and colleagues also report that kindergarten teachers did not perceive the intervention-group children as more mature or more socially competent; instead, teachers' ratings of children appeared to be heavily influenced by such family background characteristics as income, education, and race.

Evaluations of Head Start and other early intervention programs clearly indicate that participating children score higher on tests of kindergarten readiness and academic aptitude than non-intervention groups (Bronfenbrenner, 1974; National Head Start Association, 1990). It is also evident, however, that these gains are not always transferred into the public schools. Perhaps the discrepancy in classroom organization and teacher style between preschool and early intervention programs as compared with primary grades affects children's ability to accommodate to school.

For example, in most early childhood programs, spontaneous play, with its associated experimentation, exploration, problem-solving, and peer interaction, is the predominant mode of teaching and learning (Widerstrom, 1986). Primary school classrooms, including most kindergartens, have quite different goals. Children's involvement is replaced by teacher control, peer interaction is discouraged, and a specific amount of "material" must be covered on a given day, regardless of children's level of interest. At the very least, it is ironic that in the 1990s, when such a large proportion of children are receiving preschool services of one kind or another, the numbers considered "not ready" for school entry are increasing. At worst, it is highly discouraging to speculate that cognitive gains made by at-risk children in early intervention programs may be wiped out in less than a year by the demands for compliance, passivity, and order imposed by primary school settings.

Early childhood educators have recognized the need for more specific transition planning and have developed interventions geared primarily toward increasing communication among preschool and kindergarten teachers, as well as encouraging the involvement of parents in planning for children's transitions (Diamond, Spiegel-McGill, & Hanrahan, 1988; Fowler, 1982; Fowler et al., 1988; Hains, Fowler, & Chandler, 1988). The national Head Start organization also implemented a program of transition grants in 1986 to examine methods for promoting successful transition into school (Hubbel et al., 1987). Again, most projects emphasized professional communication and such administrative arrangements as transfer of records rather than direct intervention with children across the period of transition. Several studies examining the administrative aspects of transition have documented differences in teacher expectations and setting demands that may present barriers to accommodation for some children (e.g., Hains et al., 1989). Out of these studies has come another approach to intervention: school survival skill training.

School survival-skill training involves direct intervention focused on the training of specific skills immediately prior to the child's transition into school. Training in survival skills assumes that children's early school success is influenced by their ability to adapt their behavior to the daily expectations of the classroom teacher, particularly in functioning academically without a lot of teacher involvement (Sainato & Lyon, 1989). Thus, such activities as working independently at a desk or table, following verbal directions, and moving from one activity to another without disruption are typically considered school survival skills. Controversy over this approach has focused on the issue of "developmental appropriateness": whether preparation for kindergarten is an appropriate and necessary function of preschool programs. Those who argue against survival skill training are concerned that it encourages each child program to be viewed as a "prep school" for the next level, rather than a learning environment in and of itself. Eventually, the child's interests, curiosity, and creative individuality are likely to be submerged earlier and earlier in favor of the kind of compliance and passivity valued by many primary teachers.

The alternative view held by those who use survival skill interventions is that a few minor alterations in children's behavior in a few specific situations are enough to alter teacher perceptions of social maturity and therefore avoid special placements. To an extent, survival skill training can be seen as an attempt to circumvent unrealistic or rigid demands common in kindergarten and first grade classrooms. Children are taught, directly but within a supportive and positive environment, to behave the way most kindergarten and primary school teachers like children to behave -- to sit quietly in their seats, complete work without teacher involvement, and respond compliantly to teacher directives rather than initiating interactions with peers.

Many observers believe that helping children master the behavioral skills they need to succeed in the primary grades should be viewed as a task for the kindergarten and first-grade classroom, not solely for preschools. In fact, by assuming responsibility for getting children "ready" for school before they make the actual transition into kindergarten, early childhood educators have assumed a burden that naturally belongs to the schools, but which they have largely avoided in favor of the third intervention strategy to be discussed: delay of school entry.

A trend increasingly popular among primary educators, school principals, and parents is the delay of school entry for children who appear to be at risk for early difficulties. This type of intervention often involves the placement of such children in "developmental" kindergarten or first grade programs, which effectively puts off the transition into school by a year. Educators and parents clearly believe they are postponing academic and behavioral demands until children mature to the point where they can succeed more easily in the typical primary classroom.

Although programs labeled developmental or transitional differ in their content and organization, the overwhelming thrust of the movement toward later school entry is maturational, not educational. In most school districts, children in developmental classrooms do not receive individual intervention directed toward remediation of the deficits that led to the special placement; in fact, criteria for such placements are often vague and based on teacher or parent perceptions or child's age rather than specific skill levels. As further evidence for the maturational basis of such programs, at the end of the year children are rarely tested to determine if they could rejoin their age-mates, but instead are automatically placed in a second year of the grade they just completed (Charlesworth, 1989).

Despite the wide adoption of school-entry delay policies across the country and the increasing numbers of children being placed in developmental classrooms -- sometimes as many as a third of the entering children -- few school districts routinely follow children's progress to evaluate their effectiveness. However, a review of the research into delayed school entry, placement in developmental kindergarten or developmental first grade, or actual retention following kindergarten or first grade indicates overwhelmingly that these practices are rarely helpful and may be harmful to children (Bredekamp & Shepard, 1989; Gredler, 1984; May & Welch, 1984a, 1984b; Shepard & Smith, 1986, 1987). Across a range of studies in different areas of the country, we find that children who are most at risk are being further discouraged about school, children's fragile self-worth is being damaged, and, in the absence of specific interventions targeting the kinds of social behavior and classroom conduct difficulties that lead teachers to refer children to special classrooms, a delay of a year has no observable effect on what is termed children's social maturity (Gredler, 1984; May & Welch, 1984b; Peterson et al., 1987; Shepard & Smith, 1987).

The popularity of these programs despite the weight of negative evidence concerning their effectiveness may in part be related to some misunderstandings about the nature of transitions. Educators appear to see developmental programs as a way to reduce unwanted heterogeneity in kindergarten and first grade classrooms. Unfortunately, data indicate that placing some children in developmental programs does not reduce the variability within the kindergarten or first grade population (Shepard & Smith, 1986). There are always younger and older children and a range of individual differences in ability, experience, and family situation. If teachers were to study the characteristics of life transitions, they would realize that behavioral variability is always highest during transitions (Alexander & Entwisle, 1988), and will be reduced as children adjust to school, regardless of who is placed in special classrooms and who is not.

Parents often see developmental placements as a way to protect their child from stress. The idea that stress can be reduced by delaying school entry may again arise from a misunderstanding of the nature of transitions. All transitions are stressful, but they also represent opportunities. Parents who try to protect their children from the normative transition of school entry only force the child to cope with the much more difficult and emotion-laden non-normative transition of failed school entry. Thus, although everyone involved in recommending developmental placements may have good intentions, it is not so clear that the children's interests are being well served.

Another troublesome aspect of school-entry delay policies is that some child characteristics appear to make them more likely than others to be selected for a developmental program (Walsh et al., 1991). Children of poverty families, minorities, males, and children with late-year birthdays are far more likely than their numbers warrant to be placed in developmental programs. When these factors are taken together, a poor young boy from a minority family has an extremely high probability of a special placement. To the extent that these programs fail to serve the best interests of any children, these statistics indicate they have a strong potential to become discriminatory.

What, then, is the status of intervention at the point of transition into school? It may be helpful to examine the literature on factors contributing to early school success in order to evaluate current efforts to avoid failure. The most thorough analyses of early success in school have been carried out in Baltimore by sociologists Doris Entwisle, Karl Alexander, and their colleagues (Alexander & Entwisle, 1988; Entwisle & Hayduk, 1982, 1988; Pallas et al., 1987). Known as the Beginning School Study, these investigations have analyzed four constructs independently of child cognitive ability; each is hypothesized to influence early school success. The constructs are: personal characteristics of the child, such as age, sex, ethnic group membership, and popularity with peers, and also including children's own beliefs about their ability; children's school performance, including verbal test scores and classroom conduct, as well as teacher judgments about children's maturity; family and parent characteristics, such as parental education and parents' expectations for children's success; and teacher characteristics, including such job-related factors as teacher assessment of the school climate and the amount of work-related conflict experienced by the teacher, as well as ethnic group, education, and marital status. Using this model allows us to examine each of the three types of interventions reviewed.

Early intervention programs such as Head Start that select participants primarily on the basis of family background characteristics, intervene into child characteristics and possibly child performance variables. Survival skill training selects children based on child performance characteristics and attempts to influence both child performance and teacher judgment. Delayed school entry is recommended for children who are viewed by teachers as immature, and placement is frequently influenced by family background characteristics. Developmental programs vary considerably in nature, but typically assume that as the child matures over the year, his or her performance will improve.

None of these intervention approaches targets the belief systems of children or parents, and none attempts to influence the teacher or school directly. If children's own expectations for academic success, their parents' expectations for their children's success, and characteristics of the teacher and the school are the strongest predictors of a successful transition (Pellas et al., 1987), then none of the current intervention strategies is aiming at the right targets.

All of our current intervention approaches put the burden for adaptation and accommodation on the child, whose performance is then evaluated for success or failure. Perhaps it is time to ask that our schools assume an equal share of responsibility for accommodation to the full range of skill levels among children entering kindergarten. Until our schools are willing to accommodate to children rather than making children accommodate to schools, our best intervention efforts will not effectively bridge the transition into school for all children.

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The Role of Language and Social Intervention Skills *Mabel L. Rice, Kim Wilcox, Pamela Hadley*

When children go to kindergarten, it is assumed that they will be able to understand what the teacher says, carry on conversations with other children, and effectively express themselves to the teacher and other adults. Surveys of kindergarten and primary grade teachers consistently indicate that these teachers expect their students to demonstrate these skills (Hains et al., 1989). The expectation is reasonable, given that the primary means of instruction in the early years is accomplished by the teacher talking to the children. And, for most children, the expectations and assumptions are valid.

Yet not all children master the fundamentals of speech and language before school-entry age. It has been estimated that 3%-5% of preschoolers have difficulty with language development, even though their other developmental milestones are on target. Given an estimated resident U.S. population of 10,879,000 children ages 3-5 years (OSEP Report to Congress, 1989), approximately 543,950 young children are at risk for specific language impairment (SLI). This risk is also apparent in the fact that disorders of language development constitute the single largest handicapping condition in early childhood. Of the preschool children who received special education services in school year 1986, 69%, or 184,727 of the 265,814 children served, were categorized as speech-language impaired (OSEP Report to Congress, 1988).

Most of these children will attend classes in regular day care, preschools, or Head Start. Their most appropriate placement is in "mainstreamed" settings, with their cognitive and social peers, that is, with children their own age. Their speech and language difficulties can be evident in several ways. They could have problems pronouncing their sounds, such that what they say is unintelligible or just sounds "funny" or like a younger child. Or they could have clear speech, but lack basic language structures or flexibility in the use of language. For example, most children by age 4 can ask another child for a toy in several ways: "Give me that," or "I want to play with that," or "If you let me play with that, I will let you play with mine tomorrow." Children with language difficulties may only be able to use the first way of requesting, which is perceived as less polite than the other two ways of asking. Young SLI children seldom are able to use the third way of asking, the most sophisticated way of negotiating for a toy.

Observations of SLI children interacting with their peers in a preschool setting have led us to conclude that communication skills can play a central role in the social interactions of young children. Our hypothesis is based on the close relationship between social development and language acquisition during the early childhood period. During this time, socialization serves as a source of language, activating the child's natural language capacities and providing a functional context for language use. As language emerges, even young children recognize its utility as a tool of socialization. Thus, a reciprocity is established at the earliest stages of development. In the event of limited language ability, however, this reciprocity is jeopardized, in that social awarenesses may develop without attendant means of communicating them, which in turn can limit the opportunities for social interactions that can further facilitate language acquisition.

Studies of SLI Children's Social Interactions: The procedures for the studies to be summarized here were carried out in the Language Acquisition Preschool (LAP). Three groups of children, ages 3 to 5 years, are enrolled in LAP, in approximately equal numbers: normally developing children, children learning English as a second language (ESL), and children with specific language

impairment (SLI). The SLI children meet several criteria, which can be summarized as speech and/or language skills significantly below the expectations for their chronological age, combined with normal or above performance on a nonverbal test of intelligence, normal social functioning, and no evidence of perceptual or neurological problems. These children are ones with a "hidden handicap." To a casual observer of the group, they cannot be identified on the basis of how they look or how they behave. They come from all socioeconomic groups. With these youngsters, therefore, we have an opportunity to investigate the effects of speech and/or language impairment without the complications introduced by social or intellectual or sensory deficits, or socioeconomic or racial differences.

The ESL children meet the following criteria: they are recent arrivals to the U.S. who demonstrate normal language development in their native language, who are just introduced to English, and who are as close to 3 years of age as possible. Most of these children are in the families of middle-class graduate students or faculty at the university. Therefore, the ESL children are less proficient than the SLI children at the outset, although they often catch up with and sometimes exceed the SLI children within the academic year. They also differ from the SLI children in that they have a history of successful communication development.

Several features of LAP are relevant for the following discussion. The curriculum is a modification of the High/Scope cognitive-social approach. Throughout the daily activities there is encouragement of child-directed learning, with many opportunities for children to verbally interact with each other and the teachers. The emphasis on language development is throughout the curriculum; there is no special "language time," nor is individual therapy provided for the SLI or ESL children. All special instruction is negotiated with a child in the context of the classroom activities.

One activity of each day is play-center time, which is a 45-minute period when children can choose their own activity among four options: art activities, books and puzzles, blocks and toy vehicles, or dramatic play. During the play-center time children can wander from activity to activity, talk to whomever they choose, or play quietly by themselves. It is during this time that individual therapy activities are negotiated with the SLI children and any other children who chose to participate in the interactions.

The means of measurement of the children's interactions is the Social Interactive Coding System (SICS), which is an on-line data recording system. The targeted interactive skill was that of initiations and responses, cross-coded according to the person the children were interacting with. Initiation is defined as a verbal attempt to begin an interaction with another person. Responses can be verbal or nonverbal. In effect, the coding captures who is talking to whom and who initiated the interaction (Rice, Sell, & Hadley, 1990). Initiations and responses are conversational moves that are sensitive to the interface of verbal and social abilities. In order to initiate successfully, a child must have a good sense of when to approach another child, be able to negotiate joint attention, and find an appropriate way to talk about something. In other words, children must be able to successfully negotiate the shared interpersonal space. Initiations are associated with social assertiveness, whereas a disproportionate number of responses are associated with a passive social role.

Data collection was carried out in the classroom by observing children's social interactions during play-center time, when the children have relatively free choice of activities and interactants. The results of two studies (Hadley & Rice, in press; Rice, Sell, & Hadley, in press) reveal that the social interactions of these young children are significantly influenced by the children's facility with communications.

The major findings are as follows. One is that normal children are the preferred partner for all children's social interactions, suggesting that the children are sensitive to their relative communicative competence at an early age. A second finding is that children with limited communication skills are ignored more often by their peers. And these children are in turn less responsive to initiations directed to them. Children with speech articulation problems and limited intelligibility shortened their responses. On the other hand, speech/language handicapped children are more likely to initiate interactions with adults and less likely to initiate interactions with their normally developing peers.

The general impression is that as young as 3 years of age children are sensitive to relative differences in verbal facility and begin to make adjustments in their social interactions. Children with less skill develop compensatory strategies, such as reliance on adults for mediation of social interactions and meeting their needs. What is particularly striking is that the social consequences are evident on the basis of communication skill alone, insofar as the SLI children in this preschool setting do not have visible handicaps, do not differ by race or socioeconomic status, their general social demeanor is appropriate, and their intellectual resources are commensurate with their age peers.

Social Consequences of Limited Communication Skill: The general picture is that youngsters with communication limitations are vulnerable to a negative social spiral, starting in the preschool years (Rice, in press). This spiral would play out like this: To begin with, they lack the flexibility with language, or intelligibility with speech, that is essential for entry into and maintenance of social discourse with their peers. Because they lack the expected, conventionalized, and socially adjusted uses of language, they are less liked by their peers and more likely to be rejected or excluded from peer interactions. Furthermore, they recognize this problem, although probably not on a conscious level, and develop compensatory strategies, such as a greater reliance on adults, if adults are available and receptive, or a shortening of responses if their speech is unintelligible.

Academic Consequences of Limited Communication Skill: There are reasons to suspect that these social adjustments follow a child in ways that jeopardize a successful transition into kindergarten and first grade. In a study underway at the Kansas Early Childhood Research Institute, Catts reported that as many as half of the children identified in kindergarten as having speech and language problems do not get promoted into regular first grade, even though these children's tested nonverbal intellectual abilities are

within normal range. When questioned about their reasons for the nonpromotions, the kindergarten teachers often reported "social immaturity" as a contributing factor.

To investigate teacher attitudes toward children with communication limitations (Alexander, 1991), we prepared an audio tape consisting of samples of six preschool children's speech: three girls and three boys. Of the three girls, one was normally developing, one had a speech disorder, and one had language deficiencies in addition to a speech disorder. The boy triad was similar in design. The children were matched for age, nonverbal intelligence, and social status. We asked adult judges to rate each child on such items as how smart they thought the child was, how likely the child was to succeed academically in kindergarten, how much education the child's parents had, and the social status of the child's family.

Two groups of raters provided judgements: one was a group of kindergarten teachers and another was a group of educated women who were not teachers. The findings reveal a direct relationship between speech and language competencies and perceived social and academic competencies of the children, and the children's parents' levels of education and socioeconomic status. The less competent the child, the lower the ratings.

Communication skills are intrinsic to children's success in social situations. Children with limited speech and language, even if the problems are not obvious to a casual observer, suffer social consequences with significant import for probable academic and social success. Teachers and other adults tend to attribute social and cognitive limitations to children with communication limitations, even where such attributions do not apply. In so doing, these perceptions contribute further to a child's social and academic hurdles. The upshot is that the social consequences of language impairment are evident not only in a preschooler's peer interactions but also in the child's perceived social maturity, and, by extension, the child's perceived readiness for school activities. The way to break this negative social spiral, and to increase the probability of a child's success, seems to require two lines of endeavor. One is an attempt to facilitate a child's interactions with peers, to insure access to the most meaningful of social opportunities for communication application. This requires a classroom setting that encourages and supports peer interactions, and maximizes the probability of success for each child. The second way is to raise the awareness of teachers (and probably many other adults as well) about the ways in which social interactions can be influenced by language competencies, and demonstrate that it is not safe to infer a child's intellectual aptitudes (or parental occupations and social status) on the basis of a child's ability to communicate. If teachers recognize that youngsters can have limited communication ability yet have considerable academic or social aptitude, they will be better prepared to help a child with the rough-and-tumble interactions with peers, and assist a child into the world of academic endeavor.

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A Survival Skill Training Approach *Judith J. Carta, Ilene Schwartz, Jane Atwater*

Preschool programs serving young children with disabilities often fail to provide children with opportunities for learning and practicing the very skills that are most important for success in the next educational setting (Vincent et al., 1980). For example, students in special education preschools spend the majority of their time in very small groups or in individual instruction, whereas kindergarten students receive the majority of their instruction in large groups (Carta, Sainato, & Greenwood, 1988). Children in special education preschool classrooms typically receive a high rate of praise and teacher direction, while children in kindergarten classrooms are expected to complete tasks independently with minimum teacher direction, feedback, or individual instruction (Carta, Atwater, Schwartz, & Miller, 1990; Hoier, McConnell, & Pallay, 1987).

The demands and expectations of the next educational environment must be considered when early interventionists design appropriate instructional programs for special preschools (Carta, Schwartz, Atwater, & McConnell, 1991). School success, especially in the early years, depends on appropriate classroom behavior as well as academic performance. In order to facilitate success in the educational mainstream for young children with disabilities, preschool programs must take active steps to prepare their children for the transition to kindergarten. They must teach children the basic entry skills they will need to fulfill the academic, social, and behavioral requirements of the kindergarten classroom (Carta et al., 1990; Rule, Fiechtl, & Innocenti, 1990).

The Juniper Gardens Classroom Survival Skills Project, currently in its third year, has developed an instructional model based on three strategies for teaching basic entry classroom survival skills. The strategies are designed to teach young children with disabilities the behaviors deemed most critical for independent functioning in regular kindergarten classrooms by teachers in those settings (Carta et al., 1988; Sainato & Lyon, 1983). The interventions target three skill areas: the ability to make within-classroom transitions, to participate in large instructional groups, and to maintain independent work skills. Each of the interventions is content-free and each has been used in settings that represent a broad range of curricular approaches from cognitively mediated programs to direct instruction. These interventions were originally developed and individually validated by Sainato, Strain and others at the University of Pittsburgh (Sainato, 1987; Sainato & Lyon, 1983; Sainato, Strain, Lefebvre, & Rapp, 1987, 1990; Sainato, Strain, & Lyon, 1987). Currently, we are completing a project that examines the effects of combining the three components and examining the long-term effects of the entire package of components (Carta, Atwater, Schwartz, & Miller, 1990; Carta & Greenwood, 1988; Kamps et al., 1990). The data presented here demonstrate that the classroom survival skill interventions can be implemented effectively in a variety of classrooms to produce both short- and long-term benefits for young at-risk children.

METHOD: The intervention model focused on three sets of skills found to be particularly important for children moving from early childhood special education programs to typical elementary classrooms: a) participating appropriately during group instruction; b) completing individual work with a minimum of teacher direction; and c) managing in-class transitions independently (Carta, Sainato, & Greenwood, 1988). The intervention model was implemented in eight special education preschool classrooms and 17 regular kindergarten classrooms by teachers who continued to implement their existing curriculum. The goal of our project was to develop and validate strategies that could be used by teachers within the context of regular classroom activities to foster children's development of survival skills. Thus, an intervention package, composed of specific teaching strategies, was developed for each of the three sets of target skills (i.e., Transitions, Independent Worktime, and Group Instruction). These three packages have been used both at the preschool level to prepare children for the transition to kindergarten and at the kindergarten level to establish a classroom environment that supports children's successful integration.

Facilitating Effective Classroom Transitions: The goal of this intervention is to teach children how to make transitions between activities. This is an important goal for the successful integration of young children with special needs into regular environments for a number of reasons. First, it is rated as either "essential" or "very important" for success in regular classrooms by 85% of kindergarten teachers (Sainato & Lyon, 1983). Second, transition times represent the largest source of nonproductive time in the classroom (Sainato & Lyon, 1983). Third, teaching transition skills decreases the number of behavior problems that are more likely to occur during unstructured time (Paine, Radicchi, Rosellini, Deutschman, & Darch, 1983). The purpose of the transition intervention is to increase students' independence and decrease teacher prompting while students are taught to manage their own materials and move to new locations in the classrooms during within-classroom transitions. The targeted transition behaviors are taught to the entire class, using classwide strategies such as reducing time limits, using peer buddies, and marking the endpoint of the transition.

Facilitating Group Instruction: The goal of this intervention is provide teachers with an approach to group instruction that will facilitate higher rates of participation for young children with disabilities. The teaching strategies include teaching students to respond in group situations, both individually and with the whole group, and restructuring group activity instruction so that children receive more opportunities to respond. While group instruction is a primary mode of instruction in regular education classes, it is often ignored in special education classrooms for young children in favor of highly structured one-to-one or very small group settings. Providing more opportunities for group instruction to children preparing for regular education kindergartens is important because: a) it will allow all students with more opportunities to respond to instruction; b) it will offer children more opportunities to interact and learn from each other; and c) it will allow children to experience the instructional arrangements in which they will be expected to function in subsequent years.

Facilitating Independent Worktime: The goal of this intervention is to arrange the classroom environment and teach students strategies and skills they will need to work independently in classrooms. While opportunities for independent worktimes abound in regular kindergarten classrooms, similar opportunities may be rare for preschoolers with disabilities. This intervention assists teachers in restructuring classrooms to increase children's opportunities to work independently, and to teach children how to monitor their own behavior so that they will be able to direct their behavior, stay on task, and complete their work without great amounts of teacher direction.

In the first year of the study, 208 children received the intervention (48 preschoolers with disabilities, 160 at-risk and typically developing kindergartners). In the second year of the program, an additional 180 kindergarten students received the intervention, with outcomes being assessed on a subsample of 42 students.

A variety of measures were used to assess the effects of our intervention model. First, to verify that teachers implemented interventions accurately, project staff observed their classrooms regularly and rated specific intervention components using procedural checklists tailored to each of the three interventions. Second, a subset of children from these classrooms (25 preschoolers and 34 kindergarten students) were observed repeatedly throughout all phases of the interventions using complex observational assessments of their experiences and behaviors within the classroom: a) the Assessment Code/Checklist for Evaluating Survival Skills: ACCESS (Atwater, Carta, & Schwartz, 1989), and b) the Ecobehavioral System for Complex Assessment of Preschool

Environments: ESCAPE (Carta, Greenwood, & Atwater, 1985). These observations permitted us to monitor changes in classroom activities, teaching behavior, and children's behavior over the period of the project. Third, a set of pre-post measures (structured tests and teacher ratings) were obtained for 39 preschoolers and 45 kindergarten students before and after the intervention: a) the Peabody Picture Vocabulary Test (PPVT); b) the Brigance First Grade Screen; c) the Kohn Social Competence Scale; and d) the ACCESS Survival Skills Rating Scale. Fourth, at the end of the school year, teachers completed a Consumer Satisfaction Survey evaluating the difficulty, effectiveness, and importance of the survival skills intervention in their classrooms. To provide comparative data, similar assessments were also conducted in four nonparticipating preschool classrooms and four kindergarten classrooms.

During the second year of the project, children assessed in year 1 were followed in their kindergarten and first grade classrooms. In addition, a second year of survival skills intervention, implemented by five kindergarten teachers (nine classrooms), was provided for approximately one-third of the preschool children who had transitioned to regular kindergarten settings. Assessments, identical to those used in year 1, were obtained for those children, as well as for two sets of classmates identified by their teachers: other children judged at risk for academic problems and children described as "average B" students. Follow-up assessments also were conducted with children who did not receive intervention in year 2. In the third and current year of the project, children who were in kindergarten during year 2 are being followed and assessed in their first grade classrooms.

RESULTS: The experimental design and multi-level assessment system incorporated into the survival skills project have permitted us to address a number of significant questions about the efficacy of classroom survival skills intervention:

Year 1 -- Did survival skills intervention lead to positive changes in the observed classroom behavior of at-risk children? Yes. A major goal of the group instruction activities was to increase children's responsiveness to teacher prompts directed to the group as a whole. Following the intervention, children's compliance to group-directed prompts increased by 42% in preschool classrooms and 18% in kindergarten classrooms. In contrast, for non-intervention children, compliance increased by only 4% over the same time period. A primary goal for independent worktime was to increase children's active engagement in tasks independent of teacher prompting. Despite a 65% decrease in teacher prompts, children in preschool intervention classrooms exhibited a 56% increase in active engagement during independent work activities.

Did the interventions make a difference in children's achievement gains? Yes. All children were tested in fall and spring on the PPVT and the Brigance First Grade Screen. In both preschool and kindergarten, children in the intervention groups made greater gains on the Peabody Picture Vocabulary Test and Brigance First Grade Screen than did children in the control groups.

Did the interventions make a difference in children's social gains? Yes. Teacher ratings of children's social problems were obtained before and after the intervention using the Kohn Social Competence Scale. Intervention teachers' ratings indicated that they had observed decreases in problem behavior, whereas non-intervention teachers indicated negligible changes or actual increases in their students' classroom social problem behavior.

Year 2 -- Did survival skills intervention facilitate at-risk children's successful transition to the academic mainstream? Yes. Perhaps the most dramatic evidence for the efficacy of survival skills intervention is found in kindergarten placement decisions for preschool children at the end of the project's first year. Of the intervention children, 61% were selected for regular kindergarten placement. In contrast, over half of the non-intervention children (52%) were placed in special education programs. Furthermore, in classrooms where teachers maintained a high level of fidelity to intervention procedures, the proportion of children receiving regular education placements was more than twice that for other intervention classrooms.

Did the intervention group continue to exhibit an edge over the control group on achievement? Yes. Assessments of children during the school year following survival skills intervention provide evidence of the intervention's long-term benefits. For example, during follow-up assessments at the beginning of year 2, children who were in intervention classrooms the preceding year had higher PPVT percentile scores than did those from non-intervention classrooms.

Did the intervention group continue to exhibit an edge over the control group on social competence and survival skills? Yes. In the year following intervention, teachers in regular kindergarten and first grade classrooms, who did not know which children had received intervention, consistently gave lower problem behavior ratings and higher ratings on classroom survival skills to former intervention children.

CONCLUSIONS: How can young children with disabilities be prepared to receive appropriate instruction in regular education in the years after preschool? While many studies have identified a set of classroom survival skills that are critical for successful performance in the early grades, little research is available to document the fact that instruction in survival skills leads to improved outcomes. This study has documented that classroom survival skills can be taught to young children with disabilities, and that children who receive that instruction are more likely to be placed in regular kindergartens and to show improved performance on standardized measures and on teacher ratings than comparable children who have not received such instruction.

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Predicting and Preventing Reading Problems *Hugh W. Catts*

The transition from preschool into the primary grades is a particularly important one for young children. With this move come new challenges, perhaps the most significant of which is literacy. It is during the primary grades that most children are formally introduced to and acquire the basics of reading and writing. Because written language plays such an integral role in education, children's success or failure in acquiring early literacy skills can have a significant impact on their future academic performance.

For most young children, the transition into the primary grades and literacy is fairly smooth and is met with success. However, each year, thousands of children experience significant difficulties in learning to read. Research demonstrates that these early reading problems can further impede the acquisition of literacy (Stanovich, 1986). Because of their lack of success, poor readers are given fewer opportunities to read and are less motivated to read than are their normally achieving peers (Allington, 1983; Biemiller, 1977-78). As a result of their lack of opportunity and motivation, poor readers gain less experience and practice with written language and fall further behind. Thus, while other children experience success in the early school grades and build on this success in their later education, poor readers are often caught in a perpetual cycle of failure.

Because the negative side effects of reading problems may begin so early in children's education, timely intervention programs are critical. An important component of this intervention is early identification. Children at risk for reading disabilities need to be identified prior to entering the primary grades. Current procedures, however, rarely allow for such identification. This is due, in part, to the way reading disabilities have been viewed. Traditionally, we have relied on the presence of reading problems as the primary symptom of the disability. As a result, we have had to delay identification until children have begun school and have experienced significant problems in learning to read.

Recently, however, a more comprehensive view of a reading disability has been proposed (Chasty, 1985; Kamhi & Catts, 1989; Scarborough, 1990). According to this proposal, a reading disability is often the result of a more general, developmental language disorder. It is argued that this disorder is present early in life and manifests itself in different ways during development. Besides reading problems, a prominent manifestation of the disorder is the occurrence of oral language difficulties. Research shows that these problems are frequently present in the preschool years and may continue into later childhood, adolescence, and even adulthood (Catts, 1989). Thus, this view allows for the possibility that a reading disability may be identified early in development on the basis of certain oral language problems.

During the last few years, researchers have examined the oral language problems associated with reading disabilities (Bishop & Adams, 1990; Scarborough, 1990; Stanovich, 1988; Tallal, Curtiss, & Kaplan, 1989). One area of work that has been particularly relevant is the study of preschool children with developmental speech-language impairments. Research has shown that many of these children have reading problems upon entering school (e.g., Tallal et al., 1989). Whereas, speech-language impaired children, as a group, are at risk for subsequent reading disabilities, not all these children develop reading problems. Some preschool children with speech-language impairments go on to experience normal development of written language. The present study was undertaken to specify more clearly the nature of the early speech-language problems that are most closely related to later reading

disabilities. In this ongoing longitudinal investigation, a group of speech-language impaired children was administered a battery of speech-language measures in kindergarten and reading achievement tests in the primary grades. This paper reports the results from kindergarten and first grade.

METHOD: The subjects were 41 speech-language impaired (SLI) children. At the beginning of the study, subjects were in kindergarten and were an average age of 6 years, 4 months. Standardized speech-language testing (described below) indicated that 28 of the subjects had significant impairments in semantic-syntactic development, and 13 subjects had problems confined to speech articulation. All SLI subjects demonstrated normal hearing and nonverbal intelligence. Thirty children without a history of speech-language impairments served as a comparison group to evaluate the reading achievement of the SLI subjects. The control subjects were enrolled in the same classrooms or schools as the SLI subjects and were approximately the same age (mean age = 6 years, 1 month).

In the spring of kindergarten, subjects were administered a battery of standardized speech-language tests, which included measures of receptive and expressive language abilities and articulation skills, that are representative of those typically administered in speech-language assessments of young children. In addition to the standardized speech-language tests, a battery of experimental language measures was administered. These tasks were selected or developed on the basis of previous research that suggested that they may be predictive of reading performance in the early school grades (Catts, 1989; Wagner & Torgesen, 1987). These included measures of phonological awareness, verbal short-term memory, and word-retrieval ability.

In the spring of first grade, subjects were relocated and administered tests of reading achievement. These included the Word Identification and Word Attack subtests from the Woodcock Reading Mastery Tests -- Revised. In the Word Identification subtest, children were required to read a series of words in isolation. The Word Attack subtest required children to read a list of pseudo-words and provided an index of their knowledge and use of sound-letter correspondence.

RESULTS: On the reading achievement tests administered in first grade, the SLI subjects demonstrated poorer reading performance than the normal control subjects. Further analyses indicated, however, that group differences in reading achievement were primarily the result of the poor performance by the subgroup of children within the SLI group with semantic-syntactic deficits (LI subgroup). These subjects were found to perform significantly less well on measures of reading achievement than the control subjects ($p<.01$). Children with speech articulation problems alone, on the other hand, demonstrated mean reading scores within the normal range and did not differ significantly from the control subjects ($p>.05$).

In order to examine the relationship between SLI subjects' reading achievement in first grade and their speech-language abilities in kindergarten, regression analyses were performed. For these analyses, subjects' performances on standardized speech-language tests were partitioned into measures of receptive language, expressive language, and articulation abilities. Statistical analyses showed a low-moderate correlation between receptive/expressive language measures and reading achievement. Measures of articulation and nonverbal intelligence, on the other hand, were unrelated to reading performance. As for the experimental language measures, these tasks proved to be good predictors of reading ability. This was particularly true for the DELETION task (deleting the first syllable of a word and saying one remaining sound sequence), which demonstrated the strongest correlation with reading among the various kindergarten measures. Multiple regression analyses further indicated that the DELETION task combined with the RANOBJ (tasks to name rapidly a series of common objects) accounts for the most variance in Word Identification performance (r^2=50). The DELETION and SENMEM tasks (in which subjects repeated spoken sentences), were the best combined predictors of Word Attack performance (r^2=.45).

To further examine the effectiveness of the kindergarten speech-language measures in predicting reading outcome, a discriminant analysis was performed. For this analysis, SLI subjects were divided into good and poor readers on the basis of their combined performance on the Word Identification and Word Attack subtests. Results indicated that the receptive language measure, DELETION, RANAN (the ability to name rapidly a series of animals), and SENMEM tasks separately predicted which SLI children were good and poor readers with 75%-78% accuracy. Taken together, the DELETION and RANAN tasks were the best combination of predictors of reading group membership, showing a 83% correct classification.

DISCUSSION: The results of this study are consistent with previous findings that demonstrate that young children with speech-language impairments are at risk for developing reading problems. Many of the SLI subjects in this study had begun, by the spring of first grade, to fall behind their normal peers in the development of reading abilities. Whereas many SLI subjects displayed reading problems, others showed reading abilities within the normal range. The variability in reading outcome proved to be related, in part, to the type of speech-language impairment experienced by the subject. Results indicated that children with deficits in semantic-syntactic language abilities more often had reading difficulties than did children with primary problems in speech articulation. The latter children generally displayed reading abilities within the normal range, and, as a group, did not differ significantly in reading achievement from the normal control subjects. These results, thus, indicate that measures of semantic-syntactic abilities are better predictors of reading achievement than are measures of speech articulation.

Variability in reading outcome among SLI subjects also appears to be related to other language factors. Measures of phonological awareness, verbal short-term memory, and word-retrieval, abilities proved to be predictive of reading achievement. In fact, a measure of phonological awareness was found to be the best predictor of reading achievement among the various speech-language measures. In general, subjects with good phonological awareness were among the better readers at the end of first grade, while those with limited sound awareness were among the poorer readers.

Numerous other studies have documented a relationship between phonological awareness, verbal short-term memory, word retrieval, and reading development (Bradley & Bryant, 1985; Liberman & Shankweiler, 1985; Stanovich, Cunningham, & Cramer, 1984; Wolf, 1984). These studies, however, have generally not included children with speech-language impairments. The present study, thus, indicates that measures of phonological awareness, verbal short-term memory, and word retrieval are also good predictors of reading achievement in speech-language impaired children. This result is particularly important for early identification. Young children with speech-language impairments are often identified during routine screening and follow-up assessment in the preschool years. The addition of measures of phonological awareness, verbal short-term memory, and word retrieval to these assessments could better specify which children are most at risk for reading disabilities. Once identified, children could be enrolled in intervention programs before they begin school and experience problems learning to read.

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Transition to Kindergarten: The Developmental Appropriateness of Public School Environments Faced by Head Start Children

Ellen S. Peisner, Richard M. Clifford, Donna M. Bryant

One of the key objectives of preschool programs such as Head Start is to promote children's readiness for school. In order to prepare children for this transition to the kindergarten environment it is important to understand the nature of that environment. Research about the characteristics and quality of public school kindergarten environments provides useful information for designing Head Start programs that facilitate the transition to kindergarten.

The present study was designed to provide an evaluation of the public kindergarten program in the state of North Carolina. It was commissioned by the State Legislature because of an increasing concern about the suitability of kindergarten to the children attending. The study's first purpose was to document the extent of developmentally appropriate practice in kindergarten throughout the state. Did observed kindergarten practices match the guidelines recommended by NAEYC? Were kindergartens child-focused, language-rich classes where children learned through exploration and free play, or were children taught with an emphasis on academics, through large-group instruction, workbooks, and ditto sheets? The study's second purpose was to determine which factors might predict or enhance the appropriateness of kindergarten classes. This paper will present the methods and main results of this study and conclude with a discussion of the potential implications for Head Start programs.

HISTORICAL AND THEORETICAL CONTEXT: The first kindergartens, begun in Germany in the mid-19th century, were designed for 3- to 7-year-old children. In 1840, the German philosopher and educator Friedrich Froebel gave his school at Blankenburg the name "kindergarten," which translates to "children's garden." Similar to the modern-day holistic approach, Froebel's philosophy emphasized educating body, mind, and soul through play, outdoor experiences, music, movement, spontaneity, creativity, and independence. The first American kindergarten was begun in 1856, and by the 1880's there were hundreds of public school

kindergartens in the U.S. (Ross, 1976). In the late 19th and early 20th centuries, kindergartens were seen as agents of social reform, designed to benefit poor families. But by joining the public schools, kindergarten philosophies and curricula became open to criticism and debate regarding their developmental appropriateness. During modern times, issues about the appropriateness of young children's education again became the focus of national concern in the 1960's, with the launching of the Head Start movement. Kindergartens have increasingly come under scrutiny as research has begun to show relationships between preschool or early school experiences and later academic success. As the first step in children's transition from preschool programs such as Head Start to public school, the extent to which the preschool experience has prepared children for the kindergarten environment plays a pivotal role in children's adjustment to school.

Concerns about the developmental appropriateness of kindergarten appear nationwide. Other states have undertaken similar projects (e.g., California State Department of Education, 1988; Oregon Department of Education, 1986), and several position statements regarding developmentally appropriate practices have been published (e.g., Bredekamp, 1986). Other studies have suggested that young children's development is enhanced when classrooms are child-focused, well-organized, and taught in a responsive and informative way (Clarke-Stewart & Gruber, 1984; Howes & Olenick, 1986; McCartney, 1984). Based on this literature, we developed a model depicting the relationship among three classes of variables: 1) background and situational variables; 2) classroom procedures; and 3) child outcomes. Background and situational variables consider factors such as the teacher's preparation in early childhood development and education, support of the principal, and space and materials. Appropriate classroom procedures include, for example, a focus on child-choice, an environment structured for active exploration and interaction, and acceptance of a range of abilities, developmental levels, and learning styles. Examples of positive child outcomes are adequate developmental progress, positive attitudes toward school, teachers, learning, and self, and enhanced social skills. We presume that appropriate classroom procedures for kindergartners are related to certain background and situational variables, and that more positive child outcomes result from more developmentally appropriate classrooms. Specific relationships among these variables are not well documented. In this study we attempted to tap as many of these domains as possible in order to identify determinants and outcomes of developmentally appropriate kindergarten.

METHOD: Three major sources of data were collected: observational measures of classroom practices, principal questionnaires, and teacher questionnaires. We randomly selected 103 kindergarten classrooms for the study. Only five teachers and/or principals who were initially selected refused to participate, and were replaced through random selection, resulting in a 95% participation rate. Observations of these 103 kindergarten classrooms were conducted during the spring (n = 53) and fall (n = 50) of 1988. At the end of the observation, teachers and principals were each given a questionnaire to complete and return by mail to the investigators. The return rate was the same for both principals and teachers -- 90.3% (93/103 in each group). The classes were sampled in proportion to the statewide distribution of kindergarten children by two variables: school size (small, medium, and large) and region of the state (west, central, and east, as defined by the Office of State Budget and Management). It was hypothesized that regional differences might occur because the central area contains the wealthier, urban communities, whereas the west and east are more rural. There is more poverty in the east than in other areas of the state. School size was defined as follows: small = average daily membership (ADM) of less than 300, medium = ADM of 300 to 599, and large = ADM of 600 or more. The distribution of the sample classes by region and school size, closely approximated the distribution of all kindergartners in the state.

Two observational measures were used to record information from the classes visited. The Early Childhood Environment Rating Scale (ECERS) (Harms & Clifford, 1980), a rating scale designed for preschool classes, was modified for use with kindergarten classes. This standardized instrument provides an assessment of the curriculum, environment, teacher-child interactions, and teaching practices within the classroom. The ECERS consists of 37 items in 7 subscales: personal-care routines, furnishings, language-reasoning experiences, fine and gross motor activities, creative activities, social development, and adult needs. For this study we revised the ECERS by eliminating the adult needs subscale and slightly modifying 11 of the remaining 32 items to reflect kindergarten activities that usually do not occur in preschools. For example, ratings for the routine furnishings item include references to feeding tables, cots, and sheets. Since these materials would not be expected in a kindergarten class, these words were deleted, but all other parts of the item remained the same (e.g., child-sized furniture, cubbies).

Based on a three-hour observation in the classroom, each item on the ECERS is scored from 1 to 7, with descriptions anchored at the odd numbers, such that 1 represents an inadequate situation, 3 is minimal, 5 is good, and 7 is excellent. The subscale scores and the total score can be converted into mean ratings between 1 and 7. In the development of the ECERS, Harms and Clifford (1980) report high content validity (78% agreement of importance among experts), good inter-rater reliability (.899), and high internal consistency (.830). Psychometric statistics on recent samples are equally high (Clifford, Harms, & Cryer, 1990). The ECERS has become one of the most widely used measures of early childhood environments in both practical and research settings (e.g., Goelman & Pence, 1986; Kontos & Hene, 1987; Phillips, McCartney, & Scarr, 1987; Rossbach, 1990; Whitebook, Howes, & Phillips, 1989). Our modifications to adapt it for kindergarten use were relatively small ones, and we believe that the major psychometric properties were retained.

The observations were conducted by trained assessors during the spring and fall of 1988. The surveys were designed to obtain information directly from teachers and principals about their knowledge, attitudes, and beliefs about kindergarten. Questionnaires were sent to principals during the summer of 1988 and teachers during the fall of 1988.

RESULTS: This is a summary of the major findings from the observations and the surveys. 1) A wide range of quality and appropriateness was observed in kindergarten classes in North Carolina: 20% of classes met our criterion of developmental appropriateness, 20% were close to the criterion, and 60% fell well below the criterion. 2) Differences in the quality of kindergarten classes were not related to region of the state or size of the school. 3) A remedy for poor-quality kindergartens was not found in one particular aspect of the kindergarten program; weaknesses were found in all areas, from motor to language to social skills. 4) Kindergarten teachers and principals of schools with kindergartens were quite knowledgeable about developmentally appropriate practices for 5-year-olds, and higher levels of knowledge predicted higher-quality classrooms. 5) From both teachers' and principals' perspectives, administrative policies had the most influence on kindergarten programs, apart from the kindergarten teacher herself. Teachers reported learning most about developmentally appropriate practices from their own classroom experiences, other teachers, and in-service sessions. 6) Most teachers reported that children who have attended preschool programs are better prepared for kindergarten than those who have not. 7) A majority of teachers and principals believe that public school programs should be available for 4-year-olds. 8) The rate of kindergarten retention was 8.6%, with about one-third of the classes sampled accounting for 88% of the retentions.

IMPLICATIONS FOR PROGRAMS AND SOCIAL POLICY: Concern about the quality of the education received by our youngest children is increasing throughout the nation and, based on the results of our study, seems warranted. While this study documents the presence of many exemplary kindergarten classes in North Carolina, it also notes the predominance of classes that fall well below standards of developmental appropriateness. The multiple methods and sources of data used in this study provide a comprehensive picture of the extent and nature of the problem, and suggest ways to correct it. For example, teachers report that they learn most about good teaching by observing other teachers, not from in-service workshops. Principals and teachers report that administrative procedures are a considerable obstacle to teaching most developmentally appropriately.

The findings from this study and perhaps the procedures we used are relevant to other researchers and practitioners interested in examining the relationship between the Head Start experience and the transition into the formal school setting. When kindergartens are not developmentally appropriate, it is because they tend to be too academically oriented. This is not the right teaching environment for most 5-year-olds, but especially not right for Head Start graduates. However, from our own recent observations of 28 Head Start classes, the emphasis on pre-academic skills (phonics, worksheets) is "moving down" somewhat to the Head Start classes. Just because kindergarten teachers are instructing young children this way does not mean Head Start should follow suit. The best preparation for the kindergarten experience, whether more or less developmentally appropriate, is to have the best possible learning experiences in one's preschool (Head Start) class -- to learn social skills like sharing and helping, self-direction, and an enjoyment of "school" and learning experiences.

Second, we saw too much large-group instruction in kindergarten. Children do need to learn to increase their attention span over the early years, but this is accomplished best in smaller group settings with some amount of individual attention possible (or even one-to-one), accomplishing interesting and fun goals, which provides the motivation to stay on task. Gradually, 5-year-olds may then be able to better handle large-group instruction periods of 30-60 minutes. One strategy to encourage this is to help children learn to work/help each other -- cooperative learning -- which teaches learning to wait your turn. Concrete examples similar to what you might have seen include three children in the block area building a pretend fire station together or a "family" of children playing in the housekeeping area -- these experiences often naturally extend many minutes, well beyond the time that you might see one of these same children listening to a teacher. This demonstrates that these children do have the ability to attend, but it may be somewhat selective -- it matters what is being attended to.

Third, the kindergartens we observed did not have enough child-directed activities or open-ended creative experiences where the basics were provided and the child then built on them. The more a Head Start teacher can encourage self-directed and self-initiated activities, the more likely the child can use these skills later on in kindergarten. Even in a very teacher-directed developmentally inappropriate kindergarten class, children will probably learn more from this year if they are somewhat more self-directed as they come into the class.

Finally, our study provides a reinforcement of Head Start's emphasis on parent involvement. The third most important component of kindergarten programs, as rated by both the kindergarten teachers and principals, was "Parent Involvement." To the extent that Head Start can promote, encourage, and maintain parent involvement over the Head Start year, getting them involved early, then parents more likely will continue this involvement through later school years. This is clearly a characteristic valued by the public school personnel. Kindergarten teachers are a good resource for parents who want to be more involved in helping to educate their child, but we hear about the teacher or school being intimidating to the parent. Head Start's efforts to help parents feel more confident and prepared to interact with teaching staff should pay off in the kindergarten year because public school staff really do

seem to welcome and appreciate parent involvement. We would recommend, however, that these efforts could be made more organized or concrete by visiting the school with the parents or inviting kindergarten teachers to Head Start parent meetings.

These are just four of the implications of our study of kindergarten, as it currently exists, for Head Start. In North Carolina, we have made recommendations regarding developmental appropriateness in kindergarten. Children, whether Head Start or not, are not likely (yet) to attend a kindergarten that would meet our criteria for developmentally appropriate, but we hope their odds are improving. Meanwhile, Head Start children can best be prepared for these kindergarten experiences by focusing on appropriate teaching practices for their age and by giving them positive, enriching experiences that establish a base of learning skills and an enjoyment of learning -- the best fortifications for a wide variety of kindergarten experiences.

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Discussion *Ethel Seiderman*

My own program services 125 state-funded poor children from ethnically diverse backgrounds in California. With children from 3 months to 10 years old, I have the rare privilege to see the full range that takes place. Most of us come in with a myopic view of a given period in the child's life. Our families are among the poorest in the country. They are single parents, usually mothers, with drug and alcohol problems and other issues in their lives. I would say they are probably the children that would most likely show some of the issues raised here today. We work very closely with the school, but our lives are very frustrated with them. And California is supposed to be in the vanguard of change. We are struck with the language that is being used -- survival skills, target the skills. It is a warlike mentality, and I have some real concerns about whether our continuing to use that language will change the system or keep us warring with each other. That seemed to come through in a lot of the work. Maybe that is how it feels out there.

Another concern, or theme, that was mentioned today seems to be to get the school to adapt rather than the child, and to fit the child into the system. I would like to know how the child perceives our attempts to fit him into the system and what payment that extracts from the child. We were a bit worried about the implication that is driving us all -- that the school is right. We were glad to hear the parental role mentioned in the last paper. We have a great deal of concern that the theme of parents and our work with them did not weave through as much as we would like, and they seem to be brought on a little too late in the process, after there is already a problem. We are also deeply concerned about expectations, and continue to hear the theme of independence, managing on your own, needing little or no teacher direction. And we think we are in grave trouble if at 5 years old that is what we are trying to strive for. I do not think we are honest with children and I think we are asking them to make these adaptations so that the teacher won't get mad at them very often. I do not think that the onus should fall on the child.

Some questions arose about teacher dissatisfaction with the active or provocative child, whether the child has disabilities or not. That kind of child is of dismay to them. Much of our system is based on compliance, passivity, and a sense of orderliness. Also, just to fantasize a little bit, we would love somebody to do research that takes the strengths of the children whose problems we are looking at and highlight them and try to carry them to the ultimate and see whether that approach would have any impact on turning things around, rather than continuing to work from the perspective of the half empty or half full cup or of fixing what is broken.

We wondered about a couple of missing pieces. Are the children having any fun, as we drill them through? Does it matter that they like what they are being engaged in, or is that piece important? And also, from my own perspective, let us remember that children excel at different times in different areas. Seeing the full range from 3 months to 10 years, some of the things that we are discussing as problems dissipate themselves along the way. Another issue is that of transition. It is almost as if the transition is seen as something to get through, rather than a positive time, an opportunity to change gears and to move with the transition, not as a problem, but as a very valuable experience for the children.

We are also a little concerned with the sharp fall-off of staff-to-child ratios from Head Start to school programs. In our own child development programs children have an opportunity to interact with many staff, and there is a chance to match the staff member who works best with the children. This matching creates greater possibilities for motivation and success.

AUDIENCE DISCUSSION

Concern was expressed about the enormous difficulty in navigating the school system, while at the same time trying to meet the incredible needs of the children. Both must be attended to. The updating of the school system, which tends to victimize teachers and is having difficulty attracting and retaining talented educators, must be a major priority. There is a danger in addressing the needs

of children in schools before the attempt has been made to alter the unresponsive, overburdened system. This audience member feels that researchers and practitioners need to find ways of reaching policy makers.

Following on that theme, the issue of teaching to take tests -- a practice found in public education beginning in the first grade -- was addressed. This practice is not generally found in parochial schools, where one finds full-language learning. Paradoxically, one audience member commented, parochial school children have been found to be performing better on standardized tests.

Another shortcoming of the education system that was pointed out is its inability to foster attitudes and behaviors that lead to success in the larger society. Available resources for the community are not used and children are not being taught or encouraged to think independently. The skills that we know will lead to success are taught out of children throughout their public education experience.

Viewing entry into public school as a parent-child transition might help to develop ways of making that transition easier. Preschools assume parent involvement, and then this abruptly ends when the child enters kindergarten. The continuation of parent involvement in the elementary school was strongly advocated as a means of both mediating the transition and improving the system as a whole.

Roundtable 203 MINORITY SCHOLARS' PERSPECTIVE ON FUTURE EVALUATION DIRECTIONS FOR HEAD START

Chair: **Valora Washington**; *Presenters:* **John Dill, Margaret Spencer, O. Jackson Cole**; *Discussants:* **Luis Laosa, Diana T. Slaughter-Defoe**

VALORA WASHINGTON: I want to tell you a little bit about who we are and the reason we are having this particular session. The Minority Scholars on Head Start is a group that first got together with support from ACYF in 1983. My colleague, Ura Jean Oyemade, and I were at Howard University at the time, and decided that there was a great need for Minority Scholars, particularly Hispanics, Asians, and Blacks, to get together to talk about our own perspectives on what was happening with Head Start in terms of programmatic aspects as well as the evaluation research in Head Start. We were dissatisfied with the research that was coming out at that time. We convened a small group of Hispanic, Asian, and Black scholars to come together to talk about what the needs for Head Start were and how we might make a stronger and more coherent contribution to Head Start through some collaborative efforts. Perhaps one of the strongest recommendations that came out of that first meeting in 1983 was that we needed to continue to stay together and have future meetings that would lay the groundwork for finding ways to work together and collaborate on a national level, and do some real work to impact what was happening in Head Start.

Since that time, we have had formal meetings of the Minority Scholars, on average, every other year, as funding has allowed. We also have engaged in a number of national-level collaborative research studies, several of which have been published. In addition, we also have collaborated on a book about Head Start, and have done a number of other things, such as common data collection, pooling our research efforts, looking at common questions in Northern, Southern, rural, and urban sites, and developing a drug abuse prevention curriculum.

One outcome is that we, as Minority Scholars, have strengthened our relationship with ACYF, which led to a number of our scholars being asked to participate in the report, "Head Start Research and Evaluation -- A Blueprint for the Future." We still feel the need to take a more proactive stance and to continue to express our own views about this report and think about it from our unique perspectives as people of color. It is in that context that we have gathered here this afternoon to talk about the report.

JOHN DILL: The report "Head Start Research and Evaluation -- A Blueprint for the Future" is a very comprehensive and well-written document that is hard to find fault with. I am delighted with it and enjoyed reading it.

We need to go back to Slaughter-Defoe's earlier comment about the interface of intervention and culture being very important. There is a danger in attributing beneficial program effects to an intervention without considering which intervening variables may be operating, whether its acceptability or suitability or the goodness of it fits with particular cultural variables. The gains issue is also a tricky phenomenon. A hint, perhaps, is to look at subsequent curricula or ecological variables that may produce the kind of sustaining difference that we are examining.

There is an allusion to marker variables in the report, and I like the concept -- core variables that will tie in the various studies and will be sensitive to racial, ethnic, and linguistic factors, including cultural diversity. I think more work and an explanation of these marker variables is needed. The concern I have is to try to identify the most salient issues, or, in this case, variables, that may be operable in program success.

The report very nicely addresses the issue of diversity of Head Start children in communities, but this important issue cannot be overemphasized. Are we ready, in this culture, to deal with and address diversity -- in our social sciences, in our policy and legislation, in our national fabric? Will the *Zeitgeist* of the 90s provide a forum or acceptability of diversity?

The current report is going to take us a notch higher, but in doing so we need to make sure our audience, our public, is ready to deal with the intricacies of what is being promoted and suggested. One of the guidelines of the blueprint is to "promote multiple indicators and methods that should be emphasized in the measurement of important outcomes." The ultimate purpose of the proposed research and evaluation is to assess program effectiveness. Let us be careful here, because we might undercut the entire issue and importance of diversity if we are not fully prepared for the interplay of program outcomes and diversity. As an example, a tricky question to ask is, Which Head Start practices work best? The answers would probably be that most of them work. Which ones don't work? Few of them don't work.

I remember the history of looking at evaluations. I had the fortunate experience of evaluating a planned variation program in St. Thomas Virgin Islands. Everyone said, "What a wonderful research opportunity." It wasn't, because of the adaptability of that culture. And you say, "U. S. Virgin Islands, come on, how different can it be?" Extremely different! The models that are successful in Ypsilanti or New York City or Los Angeles did not necessarily work there. One conclusion we might need to reach here is to not expect only positive results. Even if our results are not consistently positive, many benefits may be gained from negative or neutral results.

One of my reactions, after reading the report, is that the panel's work is unfinished. They need to continue meeting for the following reasons. First, there is a need for a strategic plan. We need to convert all that was said into a set of goals and a set of negative and positive forces that will impact on "Head Start Research and Evaluation." Tell us a little bit more about what you see coming first, and second. When is it going to happen? And what is going to happen then? These are very difficult questions, and easy to ask when you are not a government official. But I think it is important for us to understand how you see the time frame. Second, be prepared to change curricula in higher education programs, particularly those dealing with teacher training programs, research methodology, and other issues. Third, we can no longer talk about a simplistic design, as we did in the 60s and the 70s, when we could have neat little control groups. The question is not only developing a blueprint, but working together very carefully with the multiple audiences that are out there. Expect the worst of the communications media. I had a bad dream about this blueprint, that it is going to be put on the news, but instead of the anchor person presenting it, the weather person is going to present it. It is going to be a map of the United States, and they will say, "There's a front from Albuquerque, in terms of parent training, that's headed towards the Ohio Valley that's increasing cognitive variables, but we see something towards the New York area that indicates that the social outcome." Be prepared for the fact that there will be these 30-second news bites announcing this report. What can we do to prepare the various audiences to understand that there is no one major finding? We are looking at differences in children, in programs and in locations. Those of us in graduate programs, in the social sciences will train our doctoral students not to become psychologists and sociologists, but to become news commentators. They are the only ones who really understand our data. Have you ever listened to the news on social science research? Have you been interviewed and then listened to what they say you have said?

Fourth, there is a need to disseminate the plan far and wide -- to everyone -- beyond this audience. Let us begin teaching the concepts in our graduate programs and undergraduate programs. Let us talk to legislators, let us talk to city planners, let us talk to everybody -- to make sure everything is understood -- often simplistically. That often means reducing this 15-page report to one page. And finally, let us be sensible about the political and far-reaching impact that the report will have on social issues, legislation, intervention strategies. It will change how we begin to think about programs and children. Head Start did that in the 60s and 70s. Why should we not think this proposed blueprint is going to rewrite the direction of how we assess or research or evaluate programs and children, and have far-reaching impact in terms of other aspects of this culture?

What I am saying is that this is not only going to impact impoverished, low-income children, families, and communities, it is going to have very broad-reaching implications for a lot of our society.

MARGARET SPENCER: I would like to start by saying the panel has generated an incredibly provocative document, but I still have a sense of dissonance. I think the dissonance comes from a remark that Slaughter-Defoe made this morning. She said that had this blueprint been in place 25 years ago, we would be in a different place today. That is very optimistic. The dissonance comes from knowing that nothing else has happened in this country to make social scientists, social service delivery individuals, and policy makers respond any differently to this excellent blueprint than they did 25 years ago. Unfortunately, I do not share Slaughter-Defoe's optimism because nothing major has happened to the organism. We still have children in need, individuals who need support, and society has remained the same. Relative to this very excellent report, I would suggest that a slightly different focus is needed to make sure that there is no stone unturned and that people do not have an excuse not to use this very excellent blueprint in a proactive, productive fashion.

For example, one of the issues raised by the panel in the report was the importance of dealing with diversity in terms of community effects. That is true, but I would be much more concrete in terms of the policies that are developed for cities. I live in Atlanta. Right now, for example, we are preparing for the Olympics in 1996. Right now in Atlanta we have inner-city communities that are at risk for having a second stadium built in their communities. That is really quite extreme. We never really process the impact of development and technology on communities and the experiences of children. When you fractionalize communities by building structures like new stadiums, or ever-expanding universities -- always in older communities -- it means that there is less stability there for children and families. That is a major concern I have.

The document has not talked about diversity within a group. I am speaking about the experiences of a poor male minority youth, in particular. The issue of sex differences is an important issue that has not been dealt with in this report, in terms of changes on communities for Black males. I always tell people that minority poor males share the same expectations with majority group males, of taking on the instrumental role. When we negatively impact communities this way, it means that there are fewer resources for apprenticeship opportunities for boys to learn to work, to learn to take on the instrumental role. Relative to our own work, for example, it is really clear to us that African-American impoverished males are much more sensitive to changes in the community characteristics than are females.

What is interesting is that the report does talk about parent involvement. It does not talk about the need to assess how Black, poor parents, generally Head Start parents, need to transform their parent involvement into forms that are not viewed as too intrusive by schools, so that the schools react by alienating the entire family from the school. That happens too often in inner-city communities.

The report also talks about multiple indicators and methods that should be employed, and measures of important outcomes. One outcome described is retention, but too often it is looked at in a uni-dimensional manner, in the context of its contribution to family transience, as a new kind of social mobility! The issue is important. In our research, we started working with almost 600 children in four schools, and now, at the end of a two-year period, we are in 40 schools. That is because very often you are working with several school districts, and they have informal and formal policies concerning retention. If children are going to be retained and parents are not able to impact the system through the front door, they will use the back-door method, which is to take a child out of school and move into another school district. Very often the school that the child was in has no idea where that child is. We find out from the children's peers where the children are. This whole issue of transience feeds the instability of the family, and certainly leads to an unstable school experience for the children. There is also mention in the report of the importance of program variation that must be explored while searching for explanations of differential outcomes. The report describes several program variables. There also is a need to talk about staff characteristics. For example, staff characteristics concerning cultural diversity, i.e., how staff really feel about these issues, because these ideas are transmitted to children. This is important for us, because what we are finding consistently is that cultural variables are important as buffering agents of academic outcomes. A second reason for doing this kind of research is that our children have had a cultural orientation or sense of cultural acceptance in the family context and are able to feel buffered against the negative experiences that they very often have in school.

I would like to finish by saying that I do not feel optimistic about what can happen today because many individuals who will be doing the research are doing it not because it is important to enhance the life chances of children, but because there are money resources available. White commented that Head Start evolved from a political gathering. It is still apropos that this current attention to Head Start has to do with availability of resources. If, for this current initiative, local Head Start agencies are going to identify social scientists to help them do the research, it is important that they understand that they need to invite social scientists who have a track record of asking good questions. Anything less than that makes it a very political issue, in terms of the division of resources, and not a concern with generating good science, which undergirds good interventions and good programs, to enhance the life experiences of children and their families.

Discussion *Luis Laosa, Diana Slaughter-Defoe*

LUIS LAOSA: The first part of my extemporaneous comments you can entitle "Illusions;" the second part, "Assumptions;" and the third and final one, "Generalizations."

With regard to illusions, it is very important to remind ourselves of the period that Dill referred to -- the promises and expectations that were made at that time that people believed in about the kinds of solutions that were going to emanate from social science research. You remember the exuberance of the period, and soon after the unrealistic assumptions that were not met. Then the country's faith in the power of the social and behavioral sciences to contribute to addressing social problems diminished. I do not want to sound a note of pessimism, but I want us to remember that period so that we do not promise more than we can actually deliver from research.

Another point to consider is the various influences on the child, and, of course, how the child influences the environment, so that we do not forget the community context and broader policy issues, societal factors, and constraints that that places on communities, peoples, and local services.

These are some of the variables that I think need to be considered, not in any single study, but in the overall strategy of research on Head Start. We need to look at the effects of Head Start on communities. Not much has been done on that, to my knowledge. Yet, if you remember, one of the unique characteristics of Head Start was the involvement of the community, which, at that time, was called "maximum feasible participation." That has not been talked about much in any research or evaluation done about Head Start. We also need to talk about the societal factors and how they impact programs. It is not only the legislative issues, but the regulation issues that often impact, or even cripple, programs. For example, you have legislation on services to low income families, but then the regulations define what low income is, and that can expand or diminish the focus and intensity of the program or the impact of the original law. Family involvement is critical, and it is something that Head Start is now focusing on much more. The

report devotes considerable space to an emphasis on family issues. We need to look at the characteristics of local services. This includes staff characteristics, salaries, and so forth. We also need to look at the school setting. This is critical, because what happens after Head Start is really what determines the effect of Head Start. In evaluating Head Start, we have to look at the Head Start environment in order to interpret the results. Social supports are a critical variable but are not really mentioned much in the report. Social supports is a critical domain of research how families and children develop their own meanings and skills in obtaining social supports.

Finally, we need to deal with the issue of generalization, that the same model, the same theory, even, the same hypotheses will have different effects, i.e., variables will have different relationships, depending on the populations on which you test your theory. There are even ethical implications about generalizing findings when they are based on a particular sample from a particular population.

DIANA SLAUGHTER-DEFOE: We live in a different era when information strategies and the technology that is available have served to impact all of our children, including those who are poor. The culture has come forward in 30 years, with certain imperatives that have affected our children, and certainly have disproportionately affected poor children. One of these aspects has to do with how you get and share knowledge.

Another important issue that Spencer raised is how much longer we can afford to indulge our children in some of the fantasies that they are just like any other boy, or just like any other girl, in any other community that is more privileged in our country. It seems to me that Head Start practitioners and program people have to work with the descriptive information that this new set of studies provides to deal with these matters. Times have changed since the 40s, 50s and 60s. The problems of poverty and the access to what you might call alternative routes have become increasingly difficult, and also more punitive. I am appreciative of the reviewers taking the report seriously and saying that our job as a panel is not finished because we no longer have the luxury of saying to people that maybe we will implement this or maybe we can do a little bit of that. We need to prepare an action plan in the very near future to hold persons accountable for the futures of our children.

I hope that we have modeled for the audience a process that panel members hope would happen at the local level, where people would R-E-A-D the report and discuss it, not talk about it in terms of what somebody told them was in it. Once you have put time into something and have read it and discussed it, then you are very clear that you want people to be accountable for implementing those aspects of the report that you find useful and helpful in your own work.

VALORA WASHINGTON: Listening to these comments, I am sure you have an appreciation for why this group of Minority Scholars has been very productive over the past eight to nine years. We are no longer going to be called the Minority Scholars, but the Head Start Scholars Committee for Cultural Diversity Research. There are a couple of things I am hearing from our panel that I would like to throw out for general discussion. First our panelists are harking back to a previous era and warning us to learn some lessons from that time. I would like that to be made a little more explicit.

The second question is about the need to come up with some specific strategies, because, as we have heard from Don Bolce this morning, this is one of a series of reports. We had a number of reports, and none of them has gone beyond words on the page really making a difference in what is happening in communities and in the Head Start program. What are some of the strategies to lift these words off the page and make them something that is real?

Two questions, then. What are the lessons we have learned, and what are some of the specific strategies?

JOHN DILL: There are several lessons. During the 60s, when I was a graduate student and a research scholar, life and realities were simpler. The various program models for intervention worked. You could show differences based on cognitive outcomes. Those who participated in the programs as researchers or practitioners knew they would work. If you tried to implement the same programs today, they would not work, for a variety of reasons. Another lesson is that the world is not friendly. There are forces out there that do not want Head Start to work. That is a bit of healthy paranoia to help us understand that there are those who are opposed, who are "doubting Thomases or Thomasinas," regarding this program.

We need to understand the realities in that there is a need to demonstrate the viability of this report because it is so innovative. You on the panel have rewritten aspects of research methodology. Even the current textbooks do not talk about multiple measures and multiple outcomes. You defined everything we are going to teach this fall in our graduate seminars! You cannot assume that it is going to be accepted. You cannot go back to your graduate programs and redevelop curricula thinking, "We are going to think very differently."

In terms of the second question, the strategy, say to ACYF staff, "Reconvene the group and let's take what we talked about in June and talk about a plan. Give us a strategy for carrying out the blueprint." Otherwise, it is going to be a case of the tail wagging the dog. While it is a good concept, it is going to get away from us because it is too innovative.

MARGARET SPENCER: What we have learned generally is historical. During that period of the 1960s, the only affective variables had to do with self-esteem. We now know that having low self-esteem might be more beneficial for Black boys in terms of academic

prowess because it seems as if peer self-esteem and home self-esteem help Black boys cope. They know they are not functioning in school, so they have an adaptive low academic self-esteem. We need to work on making their peer self-esteem a bit more shaky and revving up their school-based self-esteem. What we have learned is that personal identity processes for Black boys are very different than we had assumed historically. We also learned that self-esteem works differently at different developmental periods. It may well be that having self-esteem in transition is a much better predictor than having very high peer- or home-based self-esteem, at least for Black boys. Black girls are totally different. Black boys and Black girls seem to function differently in this area. We also know that there are other affective variables that are important.

During that period, we were not talking about, for example, cultural awareness, i.e., group identity variables, in a way that took into account the child's own level of cognitive maturation. We know now that the Supreme Court's decision on school desegregation based on Clark's work was problematic because they used only data from preschool children. We know now that young, bright African American children will tell you about the negative values of people of color, but will also tell you that they are wonderful because they are cognitively egocentric. It is not until they go to school and move from preoperational to more concrete ways of thinking about self in the world that that issue becomes important.

One thing that we need to do is make sure that all our esoteric research becomes translated; that people who work with children have it available and parents have access to the information. Laosa showed us this morning that 49% of Head Start workers have only finished 11th grade; another 31% have either finished the 12th grade or completed their GED. That means that what we publish in Child Development or Young Children may not be understood by people who are serving these children on a daily basis. We have a problem of translation!

SLAUGHTER-DEFOE: One of the things that we know now is that we have a better appreciation of the concept of continuity of care. We have demonstration models that have some reputation in the country for school improvement. We did not have that at that time. The notion was that the schools were O.K., and the children had to be ready, prepared. We now know that this is not simply a problem of teacher-student relations. It is a problem of organization and management of classrooms and schools themselves. This is a big source of information that has been imposed upon us over the past 20 years in dealing with the second part of the Head Start research agenda -- the maintenance of gains from the immediate benefits of Head Start.

URA JEAN OYEMADA: I have a question for Luis about the variables that you identified. It relates to Spencer's point about variations within groups. To what extent did you consider individual characteristics of the caregiver, per se, other than gross demographic kinds of variables? For example, the next session will be on the influence of psychosocial characteristics of the mother, i.e., self-esteem, locus of control, etc., on the birth weight of the child. If these are related to birth weight, you know that they would also affect behavioral outcomes later on. From our research, we feel that there are certain parents who benefit most from the Head Start experience. You could probably predict from these parents the ones who would most likely be involved, and their children would be most successful. To what extent are you considering those individual characteristics and measures?

LAOSA: An example is parental schooling level. We know from previous research that, depending on the schooling level of the parents, they use different types of teaching strategies to teach their own children. As far as we can tell none of those strategies is better than any other. They all get to the goal, which is for the child to learn. But the point is, if we are talking about transitions -- in this case, transitions between the home culture and the school culture -- that is the kind of within-group variable that has to be taken into account, so that we can further break down the populations into more specific sources of variance. In the case of maternal teaching strategies, you can see that, depending on the schooling level of the parent, you may need to provide a learning environment for the child that is congruent with a particular kind of learning style, particularly if the child patterns his or her learning after the parent's teaching strategies.

AUDIENCE DISCUSSION

Discussion began with a Federal Project Officer explaining what the next step for the Blueprint will be. A new panel will be convened that will have on it some members of the old panel in addition to new people who will help implement the proposals from the Blueprint.

A key question was raised regarding dissemination and utilization. How will the information and new research results be made available to the professionals who work directly with children and families? How will these new ideas be transferred and used by practitioners? Another question had to do with the ability of community-based staff to carry out evaluations and do research. Panelists warned that the process of learning how to conduct research and then translate it into useful information for practice evolves over many years, i.e., six to eight years. Perhaps regional Head Start offices would be the first-line recipients of the information which would then be translated into guidelines for program use at the local level.

A staff member from a Head Start regional office commented that debriefings or regional update sessions have been very helpful in understanding the latest research. For example, he mentioned that recently there was an update session on child abuse and neglect as it affects Head Start programs. From that session, local staff were able to identify new and emerging issues and treatment

approaches. An audience member mentioned that there is a national data base at Pennsylvania State University where topics are on computer or modem communication systems. This information can be accessed and used by practitioners. A panelist suggested that it may also become the responsibility of the researchers to put their research into understandable language for use by practitioners. Telecourse videos also could be helpful tools for busy staff who may not have time to read the information. In addition, teacher training could include this type of information of why particular research results may have important implications for teaching young children. Another panelist cautioned not to be too optimistic about videos as training tools. He added that the Blueprint itself also was not the answer. The answer, he felt, lies in a strategy that is grounded in a commitment from this society to its children and their futures, even if they come from impoverished families.

Several comments came from a skeptical audience member who stated that there needed to be care taken because not all research was worthy of distribution. Too often research results are taken as gospel and disseminated without a clear understanding of the quality of that research. She also remarked that since many different languages are spoken at Head Start centers, the information must be available at the local level in other than English. Research partnerships have been developing between the Head Start communities and research institutions. The model that both groups learn from each other is important, that it is not just academia taking and not giving anything back. The researchers would work closely with a center staff in the identification of the specific needs of that program and the development of a research design to fit those needs. As Head Start staff become more knowledgeable, they will be able to differentiate between sound researchers and "opportunists just interested in latching on to a new money source." Another audience member added that it would be beneficial to enhance the capacity of program-level staff to assess their own needs for evaluation and data and then increase their own knowledge and capacity to do a lot of the work themselves.

A final comment was made that stressed the importance of focusing on individual differences among communities and even within Head Start centers rather than focusing on similarities nationwide.

Roundtable 204 FACETS OF EARLY INTERVENTION POLICY FORMATION

Chair: **Eli Saltz**; *Discussant:* **Gloria Harbin**

Conceptualizing Risk in Young Children: Implications for the Design of Early Intervention Policy and Research *Rita Benn*

I wanted to share with you today how we used a research perspective to help formulate a state-wide definition of eligibility for early intervention services for young children in accordance with P.L. 99-457, Part H, in Michigan. As most of you may be very well aware, federal funds authorized by the passage of P.L. 99-457, Part H, were made available to states for five years in order to develop an interagency, multidisciplinary, family-centered system of early intervention for children aged birth to 3 who 1) exhibited a significant developmental delay, 2) were diagnosed with physical or mental conditions that had a high probability of resulting in developmental delay, and/or 3) were at risk of future disability due to environmental or biological circumstances. P.L. 99-457, Part H, mandated that states provide early intervention services to the first two groups of children. However, for the third group of at-risk children, those considered to be at biological or environmental risk for delay and who, at age three, would likely constitute a large majority of the Head Start population, the decision to provide services was left to the discretion of individual states. In addition, the determinations of eligibility criteria for all these groups were left up to each state. The degree of narrowness or expansiveness used for the defining criteria for each of these groups in each state would ultimately determine the range and number of families eligible to receive intervention services entitled under this legislation.

The task of formulating criteria to define any of these eligible groups has not been clear-cut. Each of the categories in themselves are not necessarily mutually independent, yet their delineation is required in order to obtain entitled early intervention services. Eligible children from each of these categories could comprise the Head Start population at age three or four. The added early start of family-centered early intervention services prior to age three could result in either a reduction of the number of children in need of Head Start services or more efficient use of the family and educational services offered through this program. Future research on the efficacy of Part H services could be evaluated through Head Start. Programmatic evaluation of Head Start would need to take into account these different populations of children and nature of preservice delivery.

Part H requires states to define the eligibility criteria for being considered "developmentally delayed"; however, there is no basic standard for deciding how atypical a child's performance must be before it should be considered delayed or disordered. The federal regulations suggest that psychometric criteria, such as establishment of a cut-off point in standard deviation units on standardized measures, or percent delay, be used as the basis for identifying children with developmental delays. However, there are numerous problems with this approach to identification, some of which are statistical (Brown, 1982), some of which represent the practical limitations of the testing instruments for children birth to three (Meisels, 1991), and some of which are contrary to the very guiding principles of infant screening and assessment (see Meisels & Provence, 1989). For example, if a state requires that a child must score "less than 1.5 standard deviations below the mean in two or more areas of development on a standardized test in order to be eligible for services as a developmentally disabled child, and more than one such standardized test of development is permitted to

be used, it is possible that children of greatly differing abilities may all be considered eligible. This follows because even when mean abilities are equal, distributions of these abilities may vary. This is the case when two separate groups are administered the same test, and it is even more likely when different tests that have not been standardized on each other are used. Different tests may have different means and different standard deviations" (Meisels, 1991).

Some standardized tests do not yield scores in standard deviations but in terms of age levels; a percent delay is then calculated. Use of the metric of "percent delay" for identification of developmental delay is even more problematic than standard deviation. First, percent delays are not equivalent across the three-year age span or across abilities. A 1-year-old infant whose developmental age is considered to be comparable to a 9-month-old and is said to be functioning 25% below his chronological age implies something quite different from that of a 3-year-old who is also functioning 25% below his chronological age and is functioning at an age equivalent of a 27-month-old. A 25% delay in motor development has very different implications from a 25% delay in language development. Second, most developmental scales that are available have not been constructed with sufficient reliability to be accurate enough to make fine age distinctions across developmental levels.

The research suggests that psychometric instruments should not be used as the prime criteria for determining delay in young children irrespective of the derived unit of measurement, for several reasons. Some types of delays are difficult to detect and document using only standardized assessment tools. Scores based on standard developmental tests or scales do not reflect the qualitative differences observed in the behavior and motor performance of special established and risk groups. For example, the tonal abnormalities, unusual postures, sensory processing difficulties, and attentional problems frequently observed in low birth weight babies are not reflected in Bayley scores, which are largely within normal limits at 13 months (Anazole, 1988). Identification of children with certain delays would not occur if only psychometric scores were used as eligibility criteria. Few standardized infant and toddler assessment instruments exist that capture and quantify aspects of young children's socio-emotional development, coping capacity, or quality of the parent-infant relationship.

Furthermore, the use of test scores for determining eligibility criteria can also be challenged because existing assessments have limited predictive value. Research indicates that standard infant tests have poor predictive power in determining later developmental outcome (McCall, 1981). In addition, many of the infant tests have been normed on samples that have purposively excluded high-risk groups; therefore, scores obtained for these groups are not necessarily valid or interpretable. It is standard best practice for highly trained professionals to make reliable diagnoses of developmental delay on the basis of multiple sources of information: 1) data obtained from parents about the child's health and developmental progression as well as the quality of caregiving; 2) developmental observations of the child and quality of parent-child interaction; and 3) scores based on infant assessment instruments. Based on these multiple sources of information, clinical judgments of the appropriateness of the level of a child's developmental abilities can be derived. Rather than standard deviations or percent delays, we are recommending that for the state of Michigan, the defining criteria for developmental delay should be a functional one based on clinical expert opinion formulated from the integration of information obtained from these multiple sources of data. In this way, evaluative information can be used not only for eligibility purposes but for programmatic planning needs.

The task of identifying an eligible population under the category of established risk, and at-risk, has been less clear-cut than with developmental delay. First, there is little scientific consensus regarding the differentiation of what constitutes an established medical condition that has a high probability of developmental delay from what constitutes a biological risk factor that has a high probability of resulting in developing delay (e.g., failure to thrive, HIV infection, infant drug addiction, etc.). The categories of established risk need to be clearly explained apart from the categories of biological risk, since the adoption to serve the at-risk category under P.L. 99-457, Part H, is optional for individual states. Children with conditions identified under established risk will be entitled to receive interventions, while children with specific biological risk factors may be served under federal guidelines only at the state's discretion, in accordance with a particular state's eligibility definition. In the case where a state defines children who have an established risk condition under a biological risk category and refuses to include eligibility for the at-risk group, hundreds of children may be excluded from services. The corollary is that several hundred children may be over-included if certain risk conditions are identified as established risk when the research suggests their status to be of biological risk.

In order to delineate risk categories under biological versus established risk and determine the parameters of at-risk that need to be included in an at-risk definition, a critical examination of research related to 28 risk factors -- teenage motherhood, parental substance abuse, parental mental retardation, parental psychiatric disorder, homelessness, lack of prenatal care, child maltreatment, disordered mother-infant attachments, apnea, asphyxia, perinatal status, prematurity (low birth weight, HIV, BPD), small for gestational age, failure to thrive, chronic illness, medically fragile, cancer, chronic disorders, HIV infection, otitis media, poverty, parental divorce, absence of medical insurance, and paternal unemployment -- was undertaken (Benn, 1991).

Based on an analysis of these fragmented, diverse bodies of literature, we found that the scientific evidence did not indicate what populations to consider as established risk or at biological risk for delay other than those conditions associated with chromosomal defects (e.g., Down's syndrome, etc.) or central nervous system damage (e.g., sensory or neurological disorders, etc.). Conditions such as maternal HIV, failure to thrive, toxic drug exposure, or chronic illness, while construed by many developmental experts to be established risk conditions, were for others only biological markers of risk. Research findings that would lend support to the inevitability of poor developmental outcomes for these conditions were in no manner conclusive. In some cases, such as with

HIV-positive and crack exposure, the phenomena have not been studied extensively enough to warrant definitive conclusions of the long-term inevitability of adverse developmental effects. In other cases, such as with failure to thrive or chronic illness, weak research methodology across the studies placed severe limits on our understanding of the severity of these risk factors for families and children.

In spite of these problems, nine categories were identified to be considered for eligibility under established risk. Each of these categories includes a host of medically based conditions related to chromosomal anomalies, neurological disorders, congenital malformations, inborn errors of metabolism, sensory disorders, severe developmental disorders, severe toxic exposure, chronic illness, and infectious disease. For Michigan, as with many states, the decision to provide comprehensive services to at-risk families and children becomes loaded due to the magnitude of the potential population that might be in need of service. The option, however, can become very viable once the research on developmental outcomes associated with particular risk factors is carefully reviewed and the notion of single causal risk models is discarded. While there did appear to be consensual validation on the short-term adverse effects of several individual risk factors for young children, with some risk factors such as parental mental illness, child abuse, and very low birth weight exerting more severe long term developmental effects than others (as, for example, with parental divorce, apnea, etc.), these effects were confounded by the presence of other related risk factors, in particular, poverty and the absence of social support, each of which were seen to augment the risk for greater maladaptation.

What we can conclude from the research on risk is that any of the risk factors described in the literature cannot be considered as simple risk factors. They are embedded within an ecological context of multiple risks. For example, an adolescent mother is likely to have interrupted her education, to be unemployed, single, and/or poor (Brooks-Gunn & Furstenberg, 1986; Hofferth & Hayes, 1987). A low birth weight infant is likely to have been born with accompanying perinatal complications to a mother who has not had adequate prenatal care or is adolescent (Committee to Study the Prevention of Low Birth Weight, 1985). The factors of teen parenthood or low birth weight become risk factors for children only insofar as they are associated with these other risks and reflect, in essence, the cumulative history of these multiple risks. Adverse developmental effects for any of these reviewed factors can be interpreted to result from the complex interplay of interrelated risk factors.

There are empirical, longitudinally based, studies that support a multiple-risk conceptualization as the most theoretically sound framework within which to understand risk of developmental delay in children. Despite differences in methodology and types of risk factors examined, the findings converge in suggesting that the particular combination of risk factors may be less important for predicting outcome than the cumulative number of risk factors--that the same outcomes may be the result of a different combination but similar number of risk factors. For example, in one investigation, Rutter (1983) reported no relationship between developmental outcome and single markers of risk, but found that the presence of two risk factors increased the likelihood of maladaptive outcome by a factor of four, and the presence of four risk factors by a factor of ten. Werner and Smith (1982), in their longitudinal study of almost 700 children in Kauai, found adverse developmental outcomes at age 10 evident only when children had experienced a minimum of any four of the 12 biological and environmental investigated risk factors.

Sameroff and his colleagues (Sameroff, Seifer, Barocas, Zax, & Greenspan, 1987) assessed a set of 10 environmental variables, some of which were correlates of SES (e.g., maternal education, chronicity of mental illness, minority status, family support, maternal-infant interaction, etc.) in a longitudinal study of 215 children. When these factors were analyzed in relation to socio-emotional and cognitive competence scores at age 4, major differences were found between those children with fewer risk indices and those with a greater number of risk factors. In terms of intelligence, for instance, children with no environmental risks scored more than 30 points higher than children with eight or nine risk factors. None of the single factors in and of themselves were related to either good or poor outcomes. Instead, the cumulative effect of risk, irrespective of the specific cluster of factors, was the critical marker. Moreover, it was only with the inclusion of the fourth risk factor that substantial decrements in performance were observed.

Based on this cumulative notion of risk, a four-factor index of multiple risk has been recommended for adoption as the defining criterion of at-risk group eligibility in Michigan. A decision to serve this defined group by the state of Michigan should not over-tax the service delivery system. Some agency administrators and policy makers have been concerned that the inclusion of the at-risk group for Part H eligibility may qualify too many children and families for services and exert a financial drain on the fiscal resources of a community. This might certainly be true if the presence of a single biological or environmental risk factor were to be accepted as a sufficient criterion for eligibility for comprehensive services. A multiple-risk conceptualization would limit service delivery to the most vulnerable spectrum of the population, and, in all likelihood, decrease the potential pool of families eligible for service.

We (Benn, 1991) collected data on 28 risk factors from 2,186 births in a demographically representative Midwestern Michigan county in order to ascertain the incidence of risk in a birth population. We found that the number of potentially eligible families decreased substantially with the increased accrual of risk factors. While it was found that over 34% of the birth population presented with no identified risk for delay, 42% (n=941) were characterized by a singular risk of developmental delay, and 24% by multiple risk indices: 16% (n=341) had two risk factors, 5% (n=108) had three risk factors, and 3% (n=60) had just four or more risk factors. Since children go in and out of risk status over the course of their development, it is unknown what the actual prevalence rate of risk might be for all children aged birth to three. Nonetheless, it is clear that a multiple-risk conceptualization underlying entitlement

to service delivery based on the presence of four risk factors would limit service delivery to a smaller target population for which there may be more adequate resources and which constitutes a scientifically defensible risk population. In Michigan, 3% of all births translates to approximately 4,200 infants per year.

The design of eligibility definitions under Part H, although formulated out of available research evidence and sound professional expertise, may in all likelihood be revised as state agencies and programs conceptualize how to coordinate implementation and payment of services for potential users. Underwriting early intervention policy for these three groups of children and families based on these recommended definitions and the economic reality will present the ultimate challenge in formulating a comprehensive model early intervention program that meets the needs of vulnerable children and families in Michigan and across the nation.

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The Impact of Research on the Development of State Policy for Early Intervention and Early Childhood Education: A State Scenario *Jacquelyn Thompson*

In recent decades Michigan has made continuous progress in providing needed early intervention and early childhood education for young children and their families. Research findings have provided the data upon which political advocacy for this progress has gained momentum. Questions regarding resource allocation, costs, and long-term economic benefits of early intervention initiatives have been addressed. Although analyses of this research have identified both conceptual and methodological limitations (Shonkoff, Hausser-Cram, Krauss, & Upshur, 1988), these findings have been responsible for the development of multiple events within the policy arena in Michigan. In addition, research in child development and family systems during recent decades has defined the direction of early intervention programming and policy. The Head Start model is a case in point. Ecological analyses of human development and resulting conceptual frameworks have led advocacy efforts and influenced policy and program design. The work of Zigler, Bronfenbrenner, Beckwith, Sameroff, and Friese, to name a few, provides specific examples of this influence.

The federal Head Start legislation, which marked its 25th birthday in 1990, is certainly the grandparent of much of our early childhood policy. The history of research questions and evaluation methodologies that have been applied to Head Start have enhanced our current research efforts. Those early critiques regarding IQ gains and the "leveling-off" phenomena resulting from Head Start participation led to much improved research questions. In 1977, reports presented to the American Association for the Advancement of Science (AAAS) and the finding of High/Scope Foundation reported a "sleeper" effect: Head Start graduates as high as eighth grade were outperforming control groups; they were less likely to be placed in special education or to have been left back (Hymes, 1991).

Additional studies have reported similar effects. In 1980, the Perry Preschool Project in Michigan (High/Scope Foundation) was reporting that children who had received early intervention services were found to have a 50% reduction in their need for special education services during their secondary education. By 1984, with 22 years of study behind it, the High/Scope Foundation reported ("Changed Lives: The Effects of the Perry Preschool Program on Youths Through Age 19") that quality early childhood programs led to clear-cut economic savings for states and local communities. These findings were in concert with those released in 1985 by the University of North Carolina's Frank Porter Graham Child Development Center following a 14-year study (Hymes, 1991). The momentum was well underway for the development of federal and state policy regarding early intervention.

In Michigan, the impact of the study released by High/Scope Foundation (1984) was significant. Within a year, the Michigan legislature had appropriated $1 million for pilot projects for "four-year-old children at-risk for school failure." By 1986, Section 36 of the State School Aid Act and the Department of Education Appropriation Act were regularly identifying funds for the expansion of these preschool programs. By 1990-91, these funds had increased to $30 million for both public school and private non-profit (such as Head Start) programs. Much of the criteria for the standards adopted by the State Board of Education for these programs were

those recommended by the High/Scope model. The message from the High/Scope research was "Preschool Pays Off" and "Early School Pays Later Dividends," suggesting economic benefits to the state. "From the community's standpoint, the study pointed to significant financial returns on the initial investment in early education . . . . These savings to the taxpayers resulted from reduced costs in special education, in welfare, and in the criminal justice system" (Hymes, 1991). Thus, in the area of early childhood education for children at-risk, research findings significantly influenced funding, standard, and program design in Michigan.

In the area of early intervention (birth through two years of age), research and advocacy have also influenced the development of federal policy. In 1986, Public Law 99-457 (Amendments to the Individuals with Disabilities Education Act) was enacted. This act established a national policy on early intervention that charted new courses for our youngest children (birth through two) with special needs (Garwood, Fewell, & Neisworth, 1988). The new policy included a strong emphasis on family-centered intervention and a directive to the many agencies within states to work together collaboratively to coordinate services and payment systems (Harbin, Gallagher, & Lillie, 1989; Harbin & McNulty, 1990; Harbin, Gallagher, Lillie, & Ecklund, in press).

This legislation provided funding to states to plan, develop, and implement a statewide, comprehensive, coordinated, collaborative, multidisciplinary, interagency system of early intervention services. The states, in order to meet the 14 minimum components of this legislation, were directed to establish policies that would support such requirements. One of the required components included the responsibility of defining eligibility for early intervention services under Part H. The legislation directs states to define eligibility for infants and toddlers with "established condition," as well as those who are "developmentally delayed" (P.L. 99-457, Part H, Sec. 672). In addition, states have the option of including those infants and toddlers who may be "at-risk of developmental delay." Currently, recommended parameters for eligibility for each population are being discussed, debated, and analyzed in Michigan; these recommendations are derived from a comprehensive review of pertinent literature and current research findings. When final decisions regarding eligibility are made, a collaborative interagency service and funding system must be designed.

Building a collaborative interagency system is a complex undertaking (Flynn & Harbin, 1987; Harbin & McNulty, 1990; Harbin & Terry, 1991; Peterson, 1991). One of the first questions asked by the states was, "What constitutes policy?" Gallagher (1989) has said that "policy" represents "a hypothesis about human behaviors or human organizations." Further, it is generally understood that federal or state policy represents a belief that government has a compelling interest in addressing such human behaviors and organizations. The answer to "What is policy," in an official clarifying memo from the Office of Special Education Programs, USDOE, was: "legislation, executive order, or enforceable interagency agreements" (Bellamy, 1989). Thus, while policy development is required for the early intervention program, the suggested format for policy development is flexible.

In the case of P.L. 99-457, Part H, uses two principal vehicles to develop a comprehensive early intervention system: 1) the required governor-appointed State Interagency coordinating council and 2) the designation, by the governor, of a "lead agency." While both of these provide the opportunity for leadership and coordination, both have strengths and liabilities.

The State Interagency Coordinating Council, for example, is not a policy-making body; it is an advisory body. The council has no authority or power to enforce the implementation of its recommendations unless given such authority in state statute. The political origin of the council can also become a hindrance to its recommendations. The Michigan Council was appointed in 1987 by the incumbent Democratic governor. The appointments were made for one- or two-year terms. Re-appointments and/or new appointments were not made prior to recent gubernatorial elections in Michigan. Upon the election of a new Republican governor, it would appear that many new appointments will be made. This will come at a time when the council has begun to function as a single entity, when trust has developed among its members; this developmental stage of the current council is an asset. On the other hand, the current council represents, to a measurable level, the political party that is currently not in a leadership position; this could be a liability.

The lead agency concept also has its strengths and liabilities. While the concept of coordination across agencies is practical, the designation of a single agency as "leader" among many is problematic (Harbin, Gallagher, Lillie, & Ecklund, 1990; Harbin & Terry, 1991). The "lead " agency has no authority to determine the roles or responsibilities of other agencies. Many staff of local agencies within the lead agency's system fear that other agencies will feel free to "pull out" when problems arise, leaving the lead agency the only agency with all of the responsibilities for service provision. Added to these issues is the fact that in Michigan the lead agency, Education, already has an existing requirement to provide special education to children with disabilities from birth (P.A. 451 of 1976). In the past, other systems or state agencies have denied services or funding to children with disabilities, based on the premise that it was "Education's job," since the education system had the mandate. Attempting to overcome this notion and to encourage a sense of common responsibility is difficult at best.

While the potential for policy development is inherent in the Part H legislation, research needs continue to be defined prior to the creation of policy. For example, the members of the State Interagency Coordinating Council could not clearly identify all of the pertinent early intervention programs that were administered within each agency. A research grant was awarded, and six months later a draft document was finished, which identified 58 early intervention services and/or payment systems administered with the four state departments represented on the council. These services and payment systems were highly variable and few were equally available. Generally, the criteria and policies for each of these disparate programs emanated from federal or state legislation. The services represented a very fragmented array of largely single-issue concerns that had been created independently with little thought

to other services or payment systems. Each came with administrative rules, eligibility criteria, and delivery parameters. In most cases, each of these areas will require change to facilitate coordination. This could mean the involvement of a legislative process to enact change, which involves time, negotiations, and adherence to protocol. When it has to be done for each pertinent service or payment system, the total time involvement is significant. To determine which services and systems are most critical to the early intervention collaborative system, and to determine which changes were necessary, further research was required. To meet these needs, initial federal appropriations for Part H were used to support policy studies, research and evaluation, and pertinent literature reviews. In addition, demonstration projects were funded to provide the state with data regarding interagency coordination of actual service delivery at a regional, county, or community level.

In consideration of the broad-based changes that Part H policies would inevitably bring to the state, Part H funds were also provided to involve parents, providers, and administrators in the development of new service delivery paradigms. One-half of the federal appropriations to Michigan have been disseminated through the 57 intermediate school districts in the state; these funds have supported an interagency early intervention coordinator at each intermediate school district, as well as the work of local interagency coordinating councils. Support for parent involvement, including child care and transportation, has been emphasized. These local councils have functioned as catalysts in conceptualizing the new interagency system.

While the demonstration projects and local interagency coordinating council pilots are successfully developing coordinated interagency service delivery systems, improving upon family-centered approaches, and building belief in the efficacy of such a system, issues of policy development remain. It seems that it is much easier to overcome barriers to coordinated service delivery at local or county levels than at the state level. These barriers are discussed by Gallagher (1989) and include the following: 1) Institutional barriers are those that "conflict with the current operation of established social and political institutions." These barriers are numerous. The recent changes in the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program are compatible with several of the requirements under Part H. Yet changes in the Michigan model for EPSDT are happening slowly, not at the rate needed to support the components of the early intervention system within the time frame required under the Part H legislation. 2) Psychological barriers are those that "come into contact with deeply held personal, religious, or cultural beliefs." These individual or personal barriers are seen in the comments made by those who are uncertain about change or reluctant to risk new approaches to service delivery. Many find security in operating within the status quo. There are parents, too, who fear that services to an expanded population will reduce the quality or quantity of services their children with disabilities are already receiving in Michigan. 3) Sociological barriers are those that "emerge from values and mores of particular subcultures," which may not be compatible with the family-centered theme. Michigan is a state of great cultural diversity; not only Euro-Americans, but African American, Arab-American, Asian-American, Hispanic-American, and North American Indian, among others, constitute significant segments of the state population. The role of the interventionist must be adaptable to the customs and values of all of these, and other, groups. 4) Economic barriers are those that are "most visible." One concern is the viability or stability of the federal funding level. Another is the current fiscal crisis in Michigan (as well as in many other states); decreasing revenues and concern for taxation containment are major factors in Michigan. If state funds are allocated to Part H, it will be at the expense of other programs. Concern for funding levels also creates obstacles to successful negotiations with potential collaborative partners. 5) Political barriers are those that are "played within or between professional organizations." In addition, political barriers can be found between various delivery systems or between subgroups within professional organizations. For example, there are subgroups within each delivery system (public health, special education, etc.), as well as within professional and advocacy groups (parent groups, education organizations, etc.) that do support expansion of service to children at risk of developmental delay, and there are those that do not support expansion of services to children at risk. 6) Geographic barriers are those that "lie in the geography within the states." Michigan encompasses 58,215 square miles, which includes both large rural and major metropolitan areas. One intermediate school district in the Upper Peninsula provides early intervention services to an area of 3,800 square miles, which includes five major inhabited islands as well as three recognized Indian reservations and two major state penal institutions, all of which provide unique demographic variables. This area has only recently obtained the services of a pediatrician. This is reflective of personnel shortages that plague many remote rural areas (Yoder, Coleman, & Gallagher, 1990).

Other factors that impinge on policy development include: the sheer volume of issues required by the legislation (Harbin, Gallagher, Lillie, & Ecklund, 1991); the financial situation of the state, which is currently facing fiscal crisis (Clifford, Kates, Black, Ecklund, & Bernier, 1991); and the time necessary to build relationships across agency staff, which will permit honest and meaningful negotiations for optimally coordinated early intervention services (Harbin & Terry, 1991).

Progress toward policy development among the required components has been differentiated by the quantity and quality of research, study, and evaluation associated with each of the various components. One of the major research efforts has been a study of risk factors, disabilities, and developmental delay, including screening and assessment for each; this has resulted in a major document used by the State Interagency Coordinating Council and the lead agency to recommend eligibility parameters for the Early Intervention System under Part H.

This research effort, in addition to several others, will have significant influence on the development of state policy for early intervention. The conclusions found in this document ("A Statewide Definition of Eligibility under P.L. 99-457, Part H: A Final Research Report," Benn, 1991) are of substantial significance. Public comment and public hearings, as well as an analysis of the

recommendations by each agency will suggest areas of potential collaboration. This collective effort will provide a foundation for the more intense negotiations regarding services, payment systems, and interagency coordination yet to be undertaken.

This multifaceted approach to building the Part H model in Michigan is time and labor intensive. It insures the involvement of all stakeholders and provides necessary feedback and reformulating opportunities, which has been identified as necessary for successful policy development (Harbin, Ecklund, Gallagher, Clifford, & Place, 1991). The foundation of this entire process, however, is the research base. Without the comprehensive literature review and analysis of research findings, the negotiations regarding the Part H model for Michigan would not be grounded in a factual base. In particular, the discussion of infants and toddlers at risk of developmental delay is greatly enhanced with the research document mentioned previously (Benn, 1991). For example, an interagency workgroup has been developing recommendations for the coordination of payment systems; the group has created policy goal statements that reflect the findings in the research document rather than the regulations or guidelines of individual payment systems. This will allow for a more cohesive framework as issues are identified that require changes in existing programs or policies.

Early intervention policy for Michigan, if it is to be substantive and effective, must be carefully crafted. Involvement of all stakeholders, careful analysis of effects, and a solid research base for decision-making are all critical components in this process (Harbin, Gallagher, Lillie, & Ecklund, 1991). To create such early intervention policies, which also reflect interagency coordination, is a more complex undertaking than originally envisioned. As Michigan moves forward in this endeavor, we can anticipate success only if sufficient time, reasoned negotiation, and a vision of the future are part of the policy development process (Harbin, Ecklund, Gallagher, Clifford, & Place, 1991; Harbin,Gallagher, Lillie, & Ecklund, 1990). In addition, continued use of solid research and careful analysis of resultant findings must be supported. It is our hope that coordinated early intervention services for infants and toddlers and their families will find the support, success, and longevity that the Head Start program has had, and that collectively we will provide a continuum of support services from birth through school entry that will enhance outcomes for children families, and our nation.

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Models for Implementation of Family-Based Early Intervention Services *Deborah Weatherston*

My remarks about training of early intervention personnel are based on two important assumptions. The first assumption is that the provision of early intervention services is related to positive developmental outcomes for young children and their families (Beckwith, 1990; Bronfenbrenner, 1975; Heinicke, Beckwith, & Thompson, 1988). The second assumption is that service provided to parent and infant together is a powerful method of intervention (Bromwich, 1990). This approach reduces the need for special education (Yahres, 1977), strengthens the developing child's cognitive skills (Caruso, 1984), improves positive parent-child interactions and parental care (Olds et al., 1986), and positively influences the development of healthy parent-child relationships (Cherniss, Pawl, & Fraiberg, 1980; Lieberman & Pawl, 1988).

In view of such data relating positive developmental outcomes to early intervention and infant and family focused services, effective pre-service, in-service, or professional development training models must be designed to prepare professionals and paraprofessionals to work with very young children within a framework that respects the context of the family. Models for training must help personnel to shift their child- and school-based orientation to encompass relationships and families within a home-based and family-focused approach when working with infant and toddlers referred for service. This is important for personnel who work with

infants and toddlers with identified disabling conditions, with those who are developmentally delayed, and with those who are at risk for delays or disabilities. The challenge is ours to design effective training models so that early intervention personnel feel confident and competent when working with young children and their families within their homes. This paper will present recommendations for adequate preparation of early intervention personnel and describe three models that have been designed and implemented in Michigan under the guidelines of Public Law 99-457, Part H, the Michigan Department of Mental Health and The Michigan Department of Education. Key recommendations by noted professionals in the fields of early childhood, special education, and infant mental health suggest that effective early intervention training models need to include three primary components: knowledge, best practice skills, and exploration of personal values related to infancy, parenthood, and early intervention services (Bailey, 1989; Fenichel & Eggbeer, 1989; Fraiberg, 1980; Klein & Campbell, 1990; Trout, 1988; Weatherston & Tableman, 1989; Winton, 1990). These three components provide a strong foundation for the preparation of personnel to provide family-focused services, including infants, toddlers, and their families.

The first component, knowledge, includes many essential topics. Of primary concern is an overview of infancy, including normal and expectable milestones in areas of social, emotional, sensory, motor, and cognitive growth, as well as aspects of atypical growth. Second, transitions and tasks of parenthood in which the practitioner examines roles, responsibilities, and the development of parent-child relationships are identified as crucial to preparation of personnel. A third topic focuses on the ecology of families. What do families look like? How do they work? What about fathers? Siblings? Relationships to community services and providers? A fourth area covers multidisciplinary contributions to screening, as well as formal and informal assessments of infants and their families. What tools are most helpful to understanding infant and family capacities and risks? What observations are critical when working in-home with families at risk? Fifth, training must include discussion of issues pertinent to families with special needs: the impact of the birth of a child requiring special care; feelings and recognition of sorrow, anger, or grief; the family's response to their child's requirements. Sixth, and last, training must address the awareness of personal responses that early intervention personnel have when working with infants, toddlers, and their families. Helping professionals do have feelings. They bring histories of experiences with children and families. They need support in responding to children who are delayed or have a disability and to families with special needs. How do these factors relate to each professional's response and to the services they provide to families with children under the age of 3? As stated in the beginning of this paper, knowledge alone is not sufficient.

An effective training must also include clinical and service coordination skills (Fenichel & Eggbeer, 1989; Klein & Campbell, 1990; Weatherston & Tableman, 1989). How does a helping professional talk to parents? What does the professional or paraprofessional need to see, to hear, and to say? How does the provider work with other professionals, perhaps from different disciplines, to arrange for optimal infant or toddler care? These questions and others may be addressed through inclusion of communication skills, relationship-building skills, and assessment skills when training early intervention personnel. Listening, observing, and responding respectfully to families is essential. Techniques for building working relationships with parents, partnerships with professionals and peers, and interagency collaboration are all important when developing competent and self-confident personnel. Observation and assessment of infants in interaction with their parents and in settings that include the home require approaches that go beyond study of the individual infant or toddler referred for care. Building up a knowledge base and concentration on clinical and service coordination skills are critical for effective training.

A third component is also necessary. Training must offer the opportunity for personnel to consider personal values, attitudes, and beliefs (Fenichel & Eggbeer, 1989; Trout, 1988; Winton, 1990). The training of early intervention personnel must include time to think about infancy, toddlerhood, milestones, parenthood, family relationships, and special needs. Trainees need to consider relationships with parents, partnerships, home-visit work, issues related to grief, loss, and broken dreams. Participants need to have the opportunity to consider their own responses as they listen to trainers, other professionals in the group, and parents of children with special experiences and needs. They need the chance to ask questions, problem solve, reflect on their own work, and respond to one another as case materials are presented to the training group. In sum, a successful training model needs to consider equally a knowledge base, clinical and service skills, and personal values or experiences when preparing personnel to work with infants, toddlers, and their families.

The second part of this paper examines three training models that were designed and piloted in Michigan in preparation for the implementation of P.L. 99-457, Part H: a short-term infant-parent mental health model; a long-term infant and family-focused approach; and a day-long issue-focused model. Each integrates many of the key components mentioned previously

Model I: An Infant-Parent Mental Health Model: A team of five infant-parent mental health specialists participated in six weekly training sessions in preparation for early intervention services with infants and parents together, to reduce the risks of developmental delays and to strengthen early attachment relationships and parenting capacities. All were master's prepared clinicians. All worked in a community mental health agency. One trainer presented an overview of infancy and toddlerhood, with attention to social and emotional milestones. In addition, the trainer discussed indicators of attachment as important to the development of parent-child relationships. Techniques of observation and assessment, listening, respectful responding, and relationship-building were emphasized. Other skills included methods of outreach, home-visit strategies, parenting guidance, and therapeutic support. The trainers presented case studies of infants and families during each of the two and a half-hour sessions to illuminate early intervention

work. Though time-limited, this series effectively introduced principles and practices to a small team so that they felt they could begin to provide early intervention services to a population of infants and families at high risk for delays and relationship difficulties.

Model II: An Infant and Family-Focused Approach to Service: Twelve trainees participated in a six-month, two-part training. The 12 trainees included parents of children with special needs and delays, as well as social work staff, two physical therapists, an occupational therapist, an intensive care nurse, two psychologists, a special education classroom teacher, two administrators, and an infant mental health specialist. Each worked in a separate agency. Some participants provided direct services to families and others did not. All had a commitment to infants and toddlers; some were familiar with a family-focused approach. Part 1 of the training included six, three-hour sessions of didactic material and small-group discussion: Part 2 included twice-monthly discussions, two hours in length, for case consultation and problem solving within the training group. The group was led by two trainers prepared in both infant development and family-focused work.

The initial phase included discussion of normative and atypical development in an infant's first year; tasks of parenthood; family structure, relationships, and strengths; multidisciplinary screening and assessment; approaches to parents; team building; and interagency collaboration. Skills included observing, listening, and thoughtful responding; sensitive interviewing and outreach techniques; understanding resistance; and effective relationship-building with families and other service providers. Co-trainers created a context in which trainees could safely discuss their service experiences and feelings about working with infants and families whose needs were overwhelming and who required intensive services in order to progress. They talked about families and individual responses to infant and toddler care. The presence of parents of special needs children was very significant to the training sessions. Some parents reflected on personal experiences and openly shared what it was like to have daily care of infants with many needs. Following the first phase of training, the group continued to reflect on practice with real infants, toddlers, and their families, bringing experiences, concerns, realities, and frustrations back to the training leader and the group. Each applied what had been presented in the first weeks, attended to relationships and feelings about infants and families, shared interdisciplinary perspectives about assessment and service plans, and contributed to one another's professional growth. By the end of the second phase of training, there was a solid understanding of family-focused work, an appreciation of other perspectives and disciplines, as well as a sense of competence when carrying out infant-family-focused work. In sum, theory was better integrated with practice as trainees had time to examine case work. The year ended with a sense of optimism and willingness to work together on behalf of collaborative services to infants and their families (Michigan Department of Education, Training Grant, 1990).

Model III: Issue-Focused Training: The training staff of Merrill-Palmer Institute, Oakland Schools, and Washtenaw Intermediate Schools planned two day-long summer trainings for large-group participation. These trainings complemented specific issues about an infant and family-centered approach to early intervention services. Interdisciplinary, the groups included parents of special needs children and professionals. An average of 40 participated in each training to discuss multicultural issues and communication skills. Guest trainers lectured for half of each day. Smaller group discussions and role play were planned for the rest of each day for more meaningful integration of theory and practice. As in the other two models, content, skill building, and personal reflection were of primary importance.

The outcomes of these three models may be summarized succinctly in terms of professional and personal growth: greater understanding of growth and development issues in infancy within the context of parent and family relationships and the larger social world; greater respect for the significance of expanded observation and assessment skills, including the infant or toddler, the parent, interactive variables, family relationships, and the caregiving environment; increased respect for the importance of developing relationships with parents whose infant toddlers have special needs for early intervention and family service; increased regard for the importance of supporting families when infants or toddlers are referred; an understanding that self-knowledge and reflection are continuously important for increased effectiveness of early intervention personnel; and, finally, a developing sense of competence and self-confidence among participants about early intervention and an infant and family-focused approach.

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Discussion *Gloria Harbin*

There are many times that I speak to state groups that I have to smile and cajole because many states have not used the research data that are available to them in order to formulate policy. Many have used the participant approach described by Thompson being used in Michigan. People in the participant approach sometimes use data, sometimes advocate for a special group or a special idea, and sometimes have not kept up with the data. They were trained in the 1970s; they believe in the knowledge of the 1970s as it relates to these policy development processes.

We have a wonderful opportunity given to us by the Federal policy -- a Federal policy that was based upon the ecological work of Bronfenbrenner, the transactional approach talked about by Samaroff and Chandler, Werner's work, the work of Dunst and Gallagher and Bristol, and many other people who looked at the importance of families. So Federal policy was crafted on the basis of that research. However, as people develop policies at the state level, they are having difficulty deciding how to take these conceptual contributions, which are general in nature, and put them into practice. However, it is really exciting that the states took this on when they did not have to. All states chose to participate in this, which is even more monumental. There are literally hundreds, and sometimes thousands, of people in each state who are committed, who have given incredible amounts of time to this project, and because of that, all states have made progress in trying to put together this system of services. There are other states besides Michigan that have tried to use data, but Michigan has done something else that is very good. As Dr. Benn pointed out, they used existing data; they went back and did a literature review, which was not easy, because of all of the fragments and pieces of data that had to be ferreted out and understood; it is very time-consuming. California, Rhode Island, and a few other states have tried to take the same approach as Michigan. But very few have done the systematic approach to using data to try to formulate their policy and to formulate their system that Michigan has done. I am happy to publicly congratulate you.

One of the things that I did want to mention is that states have made the most progress in developing their definition for developmentally delayed. However, they have made a number of mistakes in the policies they have developed. At the same time, there are a number of things that states have learned that I think are helpful to Head Start For one thing, Head Start is going to be serving more infants and toddlers, and as part of this larger system Head Start can benefit by the states' developing eligibility criteria and using multiple sources of information. Unfortunately, many of the states are still using a test-only approach to identifying children, and although this legislation gave states the opportunity to serve at-risk children, most states are not going to be serving this population. Only 11 states are still considering at-risk children, and those states are primarily using a multiple-risk approach. States are backing away because they are very afraid. One of the reasons they are afraid is that they are using single factors, while using multiple factors is the most reasoned and most economical approach. Since professional judgement is still the basis on which decisions are made, we need to be looking at the training of those individuals who are going to be making that judgment. States are making the least progress in those areas that require the most negotiation -- interagency agreements, financing, and personnel development.

Another area of difficulty is the lack of data available for states on how to put systems together. There are data for setting up a tracking system for low birth weight infants, but there are no data or models for setting up a comprehensive tracking system that takes in all at-risk children within a state. In looking at what kinds of models need to be funded for research to help both Head Start and Public Law 99-457, we need to be looking at the systems level. We need to be funding many more projects that look at how to make interagency systems work. We need to make sure that it does not take so much effort for the interagency system to work that it takes away from services to children and families. We also need to be funding at the individual child and family level, where, again, we do not have models. We have models that look at how to facilitate cognitive development; we have research that talks about how to refacilitate language development and how to develop motor skills. Most research is done in fragments, while we know that children learn best when learning is integrated. But we have very few models that take all of what we know about learning and integrate that knowledge into child development models. That is another challenge for Head Start and for people who work with children with disabilities.

We need to look at how we can integrate the kinds of research that we have and how to translate our research for policymakers at the Federal, state, and local levels. We have not been very effective at helping these funding sources understand how research should lead to changes in services. The challenge for Michigan, as it has been for all of the other states, is how they can take what they know from research and make sure that people at the local level understand it. In a study Haskins did in North Carolina, he gave state policy makers a variety of options, one of which was data, and asked which of them they used in making decisions about policy. Their answers indicated that data was near the bottom of the list. I think one of the things that we have to realize is that state policy makers do not read our journals, and so we have to make sure that our data gets to them.

The third and last topic I want to discuss is personnel development and training. There has been growth and change over the past 20 years in both Head Start and programs for children with disabilities. The amount of available information and data are also growing and changing. Yet, ways of making sure that people receive updates in the training has not been a priority. In addition, the incredible shortage in trained teachers has also led to a greater use of paraprofessionals; long a model used by Head Start. This calls for developing better ways of training paraprofessionals and less highly trained professionals. Some states are using exciting ways to develop training programs. Maine, which has no university programs for training people to work with young children with disabilities, relies heavily on in-service training. They have one of the most sophisticated in-service training programs that I have seen and have been working very hard with regular child care and Head Start programs. One of the universities in Colorado is using another exciting and innovative approach. They are using videotapes of interventionists working with parents and their children who have hearing impairments. Then university staff and students, as part of their learning, code the videotapes and send them back to the interventionists and the families, who then sit down and talk about them. This creates a constant loop between the program staff and the university, so that the university people do not get stagnant either. Another innovative approach to staff development was done by the American Occupational Therapy Association. Their therapists complained that they were not trained to work as interdisciplinary team members, were not trained to work in interagency systems, are not trained to work with families. So they developed an in-service training model, across all three of those topics, which included both occupational therapists and families. Families became team members in the training. I think that universities and in-service training programs are going to have to do a lot more of that. Another example is a personnel preparation training institute at the University of North Carolina, Chapel Hill, at the Frank Porter Graham Child Development Center. They are developing a number of different training modules that can be used either as in-service or pre-service training.

It is important to have a vision of a comprehensive system of services, yet most people are not trained to think in comprehensive systems. However, Head Start did think in terms of a comprehensive system, which was one of the benefits they provided in their programs for disabled children. Our research shows that one of the things that is hindering Head Start is that, not being a state agency, they do not have someone who can really represent them at the state level.

AUDIENCE DISCUSSION

Audience discussion focused on the need for both interagency coordination and expanded training of professionals to orient them towards this new family focus. Panelists reported that pilot projects are now underway for in-service training of current professionals in a variety of disciplines. This training incorporates a specialization in infancy and young children within a family context. It was also reported that several universities in Michigan have addressed the need for new pre-service training programs and have created interdisciplinary infancy programs to be attached to existing credited programs. The development of state standards may have been an incentive for the universities to develop new programs.

Roundtable 205 EXAMINING EARLY CHILDHOOD ENVIRONMENTS

Chair/Discussant: **Marilyn Smith**

A Conceptual Framework For Looking At Early Childhood Environments *Thelma Harms, Richard M. Clifford*

In the last two decades, the proportion of young children cared for in an extra-familial early childhood setting has enormously increased in almost all industrialized countries. In the U.S., the proportion of women with children under the age of 6 who were in the workforce increased from 11% in 1947-48 (Wattenburg, 1976) to 54% in 1986 (U.S. Bureau of the Census, 1987), causing a concomitant rise in child care. In the Federal Republic of Germany, the percentages of the 3- to 6-year-olds in kindergarten increased from 28% in 1960 to 68% in 1989.

Besides the increase of early childhood provisions, a growing concern for qualitative improvements in preschool settings has occurred. Attention has been directed primarily toward maintenance and improvement of standards of early childhood settings. However, relatively little is known about actual quality characteristics of the environments designed for the care and education of young children. Especially little is known about the structure of learning environments, i.e., about the different dimensions in which the quality characteristics can be categorized. This is true for both the theoretical concepts of early learning environments -- for example, following Bronfenbrenner's model -- and the instruments designed for measuring the different aspects of the environments.

The following paper is an attempt to provide a more complete understanding of the dimensions of learning environments. This will be done in two steps. First, dimensions used in different instruments designed to measure quality aspects of the early learning environments will be summarized and related to a theoretical framework of early care and education settings. Second, a factor analysis of data from 185 groups of 3- to 6-year-olds in the U.S. on environmental quality as measured by the ECERS will be presented in order to define empirically based key dimensions of early learning environments.

THEORETICAL FRAMEWORK FOR THE ASSESSMENT OF EARLY CHILDHOOD SETTINGS: The theoretical framework presented here relates the particular child care group or room within a facility to the larger contextual influences. The importance of contextual influences on child care/education environments is recognized in the formulations of Bronfenbrenner (1979), Moos (1980), Whitebook, Howes and Phillips (1989), and Doherty (1991), among others. Community, Family, Funding, Sponsorship, Setting Type, Teacher Training Support, Quality Improvement Efforts, and Regulation were selected in our framework because of their importance in current research and also in professional consensus of best practice. The following delineates the various aspects of the contextual influences on early childhood programs. At the Facility level, we identify three aspects of Administration: Personnel, Program, and Management. Within each Group we identify Structures, that is, more enduring frame conditions that may not be readily discernible through observation, and Processes-Interactions, which are immediately observable. A more detailed view of key aspects at the Facility and Group levels follows. At the Facility level, under Personnel, hiring, assignment, training, and evaluation are key dimensions. Issues such as salaries, benefits, work schedule, working conditions and in-service training/staff meetings would be included under these dimensions. Program includes resources for routine care and play, program evaluation, and relating to parents. Management includes finances, recruitment of children, regulatory compliance, and maintenance of building and grounds.

Most quality assessment instruments focus on the Group level. The Structures, or more permanent frame conditions, include People, Space/ Material, and Recurring Patterns. Within a group, features of People (child and adult) that exert an influence over many different processes and interactions are the staff/child ratio and group size; characteristics of the child and adult, such as age, sex, and ethnicity; and the attributes of the teacher, such as training and attitudes/beliefs about early childhood.

Features of the Space/Material available, such as the size and organization of space, equipment, materials and supplies, level of maintenance, and accessibility to children, also influence the Processes/Interactions in a group. Recurring patterns, such as the length of day, schedule, and routines, as well as rules for conduct and use of materials, are often less visible but are equally important in structuring the day. Parental involvement and interpersonal structures such as locus of control are also included as recurring patterns. Under Processes/Interaction we include not only the interpersonal aspects such as child-child, adult-child, child-adult, adult-adult, and individual-group, but also child-material interactions involved in play and routines.

In order to verify our categories, we reviewed the four most widely used early childhood quality assessment systems: NAEYC Accreditation, Child Development Associate Credential System, the Early Childhood Environment Rating Scale (Harms & Clifford, 1980), and the Assessment Profile (Abbott-Shim & Sibley, 1987). In these four instruments, only the NAEYC Accreditation and the Assessment Profile have administration sections. Using a 3-point designation (no, some, yes), we found that both instruments included all three categories included in our model under Facility Administration, to some degree. All four instruments assess the categories we identify under Structure and Processes/Interaction at the Group level.

DATA SOURCES AND INSTRUMENTS USED: In order to define empirically based key aspects of the group-level environment, data from 185 groups of children 3-6 years of age, mostly in single-age groups in day care centers and public school kindergartens, were used. The assessments took two to three hours each and were conducted by outside raters with no administrative ties to the programs being assessed. Data from several studies have been pooled to provide an adequate sample size for analysis. The instrument used to assess program quality was the ECERS, which consists of 37 items, each presented as a 7-point Likert scale. The items are grouped into seven categories: personal care routine, furnishing and display for children, language-reasoning experiences, fine and gross motor activities, creative activities, social development, and adult needs. Descriptors are provided for (l) inadequate, (3) minimal, (5) good, and (7) excellent.

The ECERS has been used widely in research and training. Interrater reliabilities of between .80 and .89 from our prepublication studies have been replicated by a number of other researchers, most recently by Whitebook, Howes, and Phillips (1990) in their National Child Care Staffing Study.

RESULTS: In order to get an empirically based impression of the dimensions of early childhood environments, different factor analyses of data collected with the ECERS have been conducted. The factor analyses only consider items 1-32; excluded are items 33-37, which relate to the adult needs. This exclusion is due mainly to a large amount of missing data on this part of ECERS in the data set. The analyses of the U.S. data have followed the factor model (principal factor analysis), using squared multiple correlations as initial estimates of the communalities and a varimax rotation. The scree-test pointed to a solution with four or five factors. However, the patterns of the four-factor solution were easier to interpret. The four factors account for 82.9% of the common variance and 40.8% of the total variance. Several items have loadings of .4 or higher on more than one factor. This is especially true for the items with their highest loading on factor 2, five of which also have quite high loadings on factors 1 and 3. The factor structure does not reproduce the seven subscales of the ECERS. However, the four factors denote significant aspects of early childhood care and education environments.

Factor 1 accounts for about 40% of the common variance and about one-sixth of the total variance. All items with high loadings on this factor address the abilities of teachers to interact with the children in a way that stimulates their development. This is especially true for language development and the children's reasoning. Although these items also address the availability of materials, the focus is on the activities initiated by the teachers and on their direct stimulation of the child. Correspondingly, the items focusing

on supervision of the children's activities that help the children make the best use of fine and gross motor and of creative activities have their highest loading on this factor. The stimulating role of a teacher is also indicated by the way the teacher schedules (creative) activities for the child, for example, by balancing phases of fixed structures and of flexibility, and by the way in which the teacher displays the work of the children. A prerequisite for stimulation seems to be an atmosphere in which the teacher shows respect for the children and in which she carefully observes the group dynamics and monitors social conflicts. Most of the items with loadings less than .4 on factor 1, or the items that have their highest loadings on other factors but also have a substantial loading on factor 1, support the interpretation of factor 1 as a teacher-focused dimension, which indicates the teachers' active stimulation of the children's development. In addition, the availability -- or, better, the use -- of materials for fine motor activities, art activities, and dramatic play seem to depend at least partly on this dimension. Thus, factor 1 could be labeled "Active Teaching" and has many Process/Interaction features.

Factor 2 accounts for about 29% of the common variance and about 12% of the total variance. In contrast to factor 1, which focuses on the teacher's abilities to stimulate the children, factor 2 is more related to the availability of materials and space as prerequisites for successful learning activities. The following items determine factor 2: the availability of blocks and of a special block area, furnishings for learning activities, and a room arrangement that provides for conveniently equipped centers in which children can, while supervised but not disturbed, follow their activities. In addition, all three of these items also indicate storage of materials, which stimulates independent use of materials by the children; the availability of art materials, which encourages free choice and individual expression; the provision for sand and water play outdoors and indoors, including appropriate toys; furnishings that allow relaxation in an atmosphere of softness; and the availability of space set aside to play alone protected from intrusion by others. In addition, the existence of adequate furnishings and materials for routine care contribute, at a lower level, to this factor. Even though all of these items reflect, at least partly, aspects of the environment that have been arranged by the teacher and thus reflect the teacher's capabilities to provide for stimulation of the children's development, the main focus in factor 2 is on the availability and arrangement of material and space as prerequisites for learning activities. At first glance, this is not true for two other items that have their highest loading on factor 2 and are related to the organization of group time and free play. Both items indicate more directly the teachers' stimulation of child development and thus also have higher loadings on factor 1. However, the item on free play also contains the availability of ample and varied toys, games, and equipment provided for free play. Similarly, it can be assumed that the variation in the social composition of the group (large group, small group, one-to-one adult-child activities) depends on materials and space that allow for such a variation. Factor 2 can therefore be labeled "Provision for Learning Activities," since it reflects the availability and arrangement of materials and space that are prerequisites for learning.

Factor 3 accounts for about 20% of the common variance and about one-twelfth of the total variance. This factor is dominated by items that directly address the care dimension of early childhood settings, i.e., meeting the child's physical care needs in a way that, at the same time, is valuable as a learning experience for the children. This is especially true for the provision of meals and snacks, the toileting of the children, the personal grooming and, at a lower level, the organization of nap and rest time. Two other items also have high loadings on factor 3; however, they have their highest loading on factor 2. It can be assumed that the availability of provisions for sand and water play outdoors and indoors indicates a more general feature of a well-equipped setting. The same general effect may be true for the item on learning furnishings. The availability of adequate furnishings for learning, consisting of tables, chairs, open shelves for storage, art tables, water tables, etc., may also indicate general material conditions conducive to meeting the children's physical care needs. Two other items that have their highest loading on factor 3 -- one on cultural awareness and the other on gross motor time -- are difficult to interpret, however, their loadings are rather low. In general, factor 3 can be labeled "Routine Care."

Factor 4 accounts for a reduced part of the variance, only about 11% of the common variance and less than 5% of the total variance. This factor is only marked by three items, including one item that has a loading of almost the same size on factor 1. Factor 4 is clearly related to the availability of adequate and safe space for gross motor activities and the availability of stimulating and flexible equipment for gross motor activities. The supervision of gross motor activities, which has its highest loading on factor 1, also loads on factor 4 with an almost identical loading. However, the loadings are rather low. In addition, the item on the availability of materials for perceptual and fine motor activities has its highest loading on factor 4 (almost the same loading as on factor 1). Thus, conditions providing for adequate gross motor space and gross motor equipment also seem to provide for the availability of materials for the stimulation of fine motor activities. In general, factor 4 can be labeled "Provision for Motor Development." Factors 2, 3, and 4 are more heavily weighted with structural features .

In summary the factor analysis reveals four dimensions of early childhood group settings. Active teaching -- the teacher's stimulation of child development; provisions for learning activities -- the availability and arrangement of materials and space as prerequisites for learning; routine care -- the fulfillment of the physical care needs of children; and provisions for motor development. The four factors indicate, at least partly, the influence of different contextual variables, and might therefore be responsive to different kinds of interventions. Thus, Factor 1, Active Teaching, is heavily affected by teacher training and support programs. The capabilities of teachers are also important for the other three factors. However, the improvement of provisions for learning activities, routine care, and provisions for motor activities need interventions that involve material and spatial conditions, and therefore rely heavily on funding and regulation.

DISCUSSION: A comparison of these four dimensions of the ECERS with other studies is limited because, despite the widespread use of the ECERS, only a few studies report results of factor analyses. In the National Child Care Staffing Study (Whitebook, Howes, & Phillips, 1989), two factors were extracted that were labeled Preschool Appropriate Caregiving and Preschool Developmentally Appropriate Activity. The first factor relates to supervision, tone, language stimulation, and, in general, is comparable to our factor "Active Teaching." The second factor addresses the availability of materials and space, and is thus comparable to our factor "Provisions for Learning Activities." However, a direct comparison of the two factor analyses is not possible because the National Child Care Staffing Study uses a Maximum Likelihood Solution with an oblique rotation -- the two factors are highly correlated -- whereas a different approach is followed here. In further analyses, an attempt will be made to reproduce the results of the National Child Care Staffing Study by using the same approach.

According to the results of the factor analysis, four additive scales have been constructed. For each scale, all items with loadings greater than or equal to .4 on the corresponding factor have been considered. Thus, scale 1 consists of 13 items; scale 2, nine items; scale 3, five items; and scale 4, only three items. The four factors are highly correlated (all correlations range from .43 to .82), thus indicating that it may be inappropriate to think of independent quality dimensions. Not surprisingly, the highest correlation can be found between factor 1 "Active Teaching" and factor 2 "Provisions for Learning Activities" (r=.82). Even if factor 1 is more focused on the teacher and factor 2 on materials and space, both scales may be considered two sides of a higher order factor: the capabilities of teachers to target both their interaction with the children and the space and materials in a way that stimulates the child's development -- even if the conditions of a facility may be insufficient. The other intercorrelations are markedly lower (ranging from .43 to .68), and indicate a certain degree of independence of the scales.

CONCLUSION: As we continue to focus attention on the improvement of program quality, it is important to channel our increasing empirical information into the development of a theoretical framework to guide our understanding of the complex issues involved in providing quality early childhood education. Research efforts relating program quality to the larger ecological context as well as those relating program quality to child outcomes have important input for a theoretical framework. A strong theoretical framework can, in turn, help us refine our definition of program quality and sharpen our assessment approaches.

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Regulating Child Care Quality: Evidence From NAEYC'S Accreditation System *Susan Bredekamp*

The paper I wrote in 1989 was based on the results we gained during the development and implementation of our accreditation system. We have now been operating with the system for five years, so we have more data. At that point, we had made 800 decisions. We have now have 1,520 accredited programs. Approximately 15% are turned down. At least 1,650 programs have gone through the system and a decision has been made about them. Another 4,500 have obtained self-study materials, and we assume they are somewhere in the process. In effect, we have approximately 6,500 to 7,000 programs that have been operating in our accreditation system. I wish that we had hard and fast data to report, but most of it is impressions and observations that I have made after five years of activity.

I did want to comment on the "Prime Time Live" show. That was extremely distressing for us to watch. However, it did remind us how much work we have yet to do. No matter how much we think we have dealt with quality of child care, we still have a significant undone job. The program showed the extreme examples of negative care that do not ever come to our attention and accreditation. I have to be honest with you. They are far away from what we deal with. But, interestingly enough, in the center that they showed as an example of a good program was the kind of program we turned down for accreditation. This points to the work that we have to do in helping people understand what quality is.

Back to the topic, we have been seeing more involvement from Head Start Programs in our accreditation system. When we originally developed the system, we did not anticipate that there would be large numbers of Head Start programs because they had their performance standards and various systems in place. We found recently that 6% of our accredited programs are Head Start, up from 3% two years ago. Another growth area is public schools. I now have thousands of classrooms where we have collected information. When we did our original factor analysis, using ratings, directors ratings, and validators ratings, we found that they were almost exactly the same, which was reinforcing to us. This was particularly rewarding from the standpoint that teachers, directors, and validators have very different levels of preparation in the field, which we know to be true.

And when I talk about our instrument I am summarizing, because the accreditation system has various pieces to it: a classroom observation, a parent questionnaire, a staff questionnaire, and an administrative report. Because we valued what was happening in the classrooms with the children more highly, we have not done an analysis on much of the data we collected. It is reinforcing though to look at the factors that we generated with our instrument and to compare them with the ones that Thelma just reported and to see how very similar they are. Although they may not come in exactly the same order, the items are somehow there as the top items. It seems to me that these are the items that account for the variance. We have a strong factor that we call "preschool curriculum," which is similar to their "provisions for learning activities" factor. It overlaps the "act of teaching" somewhat because it has to do with the kinds of activities the teacher does. So, when you talk about activities being provided to foster a positive self-concept, develop social skills, etc., you are really talking about what the teacher is actually doing with the children. It is very close to the "act of teaching," which is also similar to the second factor, "the positive interactions" factor. The third factor that played out was the "schedule of activities," which is very similar to your "routine" factor. It is just one more way of noting the fact that I think we do have a pretty strong consensus about what quality is in this country. There is some consistency, even though we presumably have these different measures and they are essentially validating one another. In 1989, we were trying to push for national standards in the Federal legislation and were using our 1984 factor analysis to determine what we had learned from our accreditation experience that might inform national standards. The way we originally developed the criteria was by generating lots and lots of items and sending them out for a content validity check to over 200 experts. The experts rated each of the items as to whether it should be included in our instrument and whether it was "important," "somewhat important," or "less important," using a 4-point scale. The items that had the top mean ratings among these experts include items about health and safety, staff-child interactions, curriculum, staffing, and staff qualifications. All of these had a rating of approximately 3.8 among the specialists. It was interesting to me that these items correlated with the items that had played out in our factors, and are the same items that Thelma was talking about, with a few differences.

When I look back at our decisions, I see that with just some general guidance, our three-person teams relied on their professional judgment to make decisions. A few examples are: 1) An item says, "staff used positive techniques of guidance," and a second part of that item says, "they do not use corporal punishment." If we have a program that uses corporal punishment the commission does not give them the accreditation. 2) An item under health and safety says "children are under adult supervision at all times." If, during your visit, children are left unattended, the program does not get accredited.

The observation instrument factors only indicate what we observed in the classroom. But when you look at these criteria that were rated most important by the specialists, you see the staffing and staff qualifications, the administrative piece that is predictive for the interactions. We have found what strong predictors those variables are. Yet they do not predict quality, because we have seen situations where programs have been meeting our criteria for ratio and group size, and we have not gotten accredited because they were not demonstrating the quality. But, more frequently, when programs get sufficiently out of compliance in these areas, they cannot demonstrate the positive interaction and the appropriate curriculum in the classroom. It is not that we necessarily turn programs down because they do not meet our staffing, but that when they are too far out of compliance with our staffing they do not demonstrate the other kinds of things that we are looking for. That is something I never really knew as strongly as I know now, having looked at 1,600 programs. It is just incredible!

The other problem area I have started to see very strongly is group size, and we need more studies on this. It is a very complicated variable to put in to the decision processes. I do not know if it is such a powerful variable because it is so powerful in the minds of professionals. We have situations where a validator walks in and sees a large group size and just freaks, and then cannot see beyond the fact that there are large numbers of children. They cannot see if there is a psychological grouping that is less than the physical grouping -- that sort of thing. But when commissioners see large group size, they freak too. So group size becomes this incredibly powerful predictor of the decision, and I am not altogether sure if it is as real a variable as some think. We have had a situation where a director says that the validator indicated that because of group size they should never have applied -- which is bad validator behavior. If somebody articulates it, think of the number of people who are not articulating it. The issue is becoming even more prominent as we see public school kindergartens coming into this system.

AUDIENCE DISCUSSION

Tradeoffs between ease of administration and a more robust measure with possible unnecessary items were considered. Some items on a measure may in fact be unnecessary for the eventual score derived, but may help a person get a better feel for the setting. For example, some argued for the need to include items about adults needs, which may make the measure longer to administer, but also may make the measure a better indicator of the quality of the setting. Others countered that a place that scores high on the child items will also score high on the adult items so there is no need to include adult items on the measure. Harms mentioned that professionals who reviewed her measure all recommended deleting the adult items which indicated to her a lack of awareness in the field about the importance of addressing adult needs in a child care setting. Bredekamp followed up by noting that the best negative predictor of accreditation was a setting not having a director with an early childhood background.

Roundtable 206 NATIONAL EVALUATIONS

MEETING THE CHILD CARE AND EDUCATIONAL NEEDS OF LOW-INCOME FAMILIES

Co-Chairs: **Elizabeth Farquhar/Patricia Hawkins**; *Discussant:* **Craig Ramey**

Early Education and Care Options for Preschool Children in the U.S. *Ellen Eliason Kisker, Sandra Hofferth, Deborah Phillips*

Several dramatic trends have contributed to the growing need for early education and care that has become a prominent national policy concern. The first is the increasing labor force participation of mothers of young children. The labor force participation of women in general has increased, but the labor force participation of mothers of children under school age has increased even more dramatically: from 12% in 1950 to 54% in 1985. Second, a trend that is contributing to the increased labor force participation of mothers is changing family composition. More children are now being raised in single-parent households. The percentage of white children living with a single parent has nearly doubled since 1971, from 10% to 20%, and a substantial and growing proportion of minority children are being raised by single-parents. Among Hispanics, more than 30% of children are being raised in single-parent households, and among Blacks the proportion is more than half. In addition to the growing need for nonparental care so mothers can work, there is an increasing demand for preschool enrichment programs by all mothers, including those who are not employed. For example, the percentage of white 3- and 4-year-olds enrolled in preschool has increased among both working and nonworking mothers, but has increased most among nonworking mothers of 4-year-olds. Finally, there has been an increasing recognition of the benefits of early education for disadvantaged children. This increasing recognition has resulted from research showing that high-quality preschool programs for low-income children lead to more positive developmental outcomes, better school performance, and in some cases improved education and employment outcomes as adults. It is evidenced by the growth in preschool programs for disadvantaged children and the major focus on school readiness in the national education goals.

As a result of these trends, child care and early education have become a major policy issue. Concern about the availability, affordability, and quality of care arrangements has grown and led to a number of new policies that address these concerns, especially for low-income families. Child care is a central component of the Family Support Act, the welfare reform legislation that was passed in 1988. The Family Support Act requires welfare recipients whose youngest child is age 3 or older to participate in the JOBS program as a condition for receiving welfare benefits. To enable welfare recipients to meet this condition, the Family Support Act also stipulates that states make child care support services available to parents while they participate in activities. The Family Support Act also provides up to a year of transitional child care assistance when mothers leave welfare to become employed. As a result of these child care provisions of the Family Support Act, the availability and cost of care are key issues in the implementation of the JOBS program. Another new policy is the Human Services Reauthorization Act passed in 1990, which promises to expand Head Start to serve all eligible low-income children by 1994. It also provides funds for expanding programs to full day/full year, upgrading program quality, and providing parent and child centers for children under age 3. Another major new piece of legislation is the 1990 Child Care and Development Block Grant Program that addresses the child care needs of low-income families through an earned income tax credit for families with annual incomes below $20,000 -- a state block grant program to increase availability and affordability of care for low-income families and to improve the quality of care in low-income areas. Increased attention is also being paid to early education by education policymakers who have declared that school readiness is the nation's first education goal. They have adopted the position that all eligible children should have access to Head Start, Chapter One, or some other successful preschool program with strong parental involvement. Our priority should be to provide at least one year of preschool for all disadvantaged children.

Given the new policies that are being implemented, current national data are needed both to inform policymakers and program operators who are implementing these policies and to serve as a baseline for future assessments of the effects of these new policies. The two studies -- the National Child Care Survey and the Profile of Child Care Settings study -- have been designed to meet these information needs and have been closely coordinated throughout all stages of the research to insure that together they produce a comprehensive picture of the national market for child care and early education.

Between them, the two studies examine all components in the market for child care. The National Child Care Survey interviewed child care consumers and their providers, including nonregulated family day care providers, and the Profile of Child Care Settings study interviewed center-based early education and care programs and regulated family day care providers. The two studies used the same questionnaires for interviews with child care providers, shared the same sample, and interviewed providers and consumers in the same geographical areas. Although the study results are not yet available, we learned a lot during the course of assembling the sample frame lists and conducting interviews with early education and care providers.

The principal objective of the Profile of Child Care Settings study is to obtain national estimates of the level and characteristics of early childhood programs available, obtained through computer-assisted telephone interviews with a representative sample of providers.

The sample design was developed to insure representativeness of key types of providers and to meet minimum precision standards for estimates of characteristics by type of provider, as well as for other key subgroups. The sample was selected in two stages. In the first stage, a stratified random sample of 100 counties or county groups that are representative of counties in the United States was selected. Counties were stratified according to region, metropolitan status, and policy level, and were selected from each stratum with probability proportion to the size of the population under age 5. In a second stage, a stratified random sample of providers within the sample of counties selected in the first stage was drawn. The providers were sorted into strata according to the type of provider: Head Start programs, public school programs and other center-based programs, and regulated home-based programs. The basic sample frame consists of child care centers, early education programs, and home-based child care providers that are licensed or registered in the state or county in which they are located. Because the coverage of licensing regulations varies among states and counties, this basic sample frame was augmented with the religious-sponsored programs, part-day preschool programs, and other programs that are exempt from licensing in some places. The basic sample frame was also expanded to include public and private school-based programs. Because the quality of national lists of licensed child care providers available from vendors selling lists primarily for marketing purposes was questionable, and because lists of some providers would have to be obtained from state and county sources under any sampling strategy, the sample frame lists were assembled by contacting state and local agencies in the states and counties selected for the study.

Several aspects of this process are noteworthy. First, we received 100% cooperation from all the states and counties in the sample in obtaining lists of licensed providers. Another thing to note is that the agencies responsible for licensing or registering family day care providers sometimes required special assurances that the lists they gave us would be kept confidential, but in all except two cases they released their lists of family day care and group home providers, and in the two other cases alternative arrangements were made in which the licensing authorities helped us select a sample. Finally, in terms of the procedures for compiling lists of providers who are exempt from licensing, in the case of public school programs, we constructed lists of programs by obtaining lists from state departments of education, and where such lists did not exist, we called local education agencies and asked them about the programs in their schools. This enabled us to construct lists of public school programs for all of the counties in the sample. In many states Head Start programs are not specifically exempt from licensing, but may be exempt because they operate less than four hours per day or are considered Federal programs. In places where Head Start programs may not have been licensed, we compiled lists by calling Head Start grantees in each county to find out about all the programs that they sponsor. In the case of religious-based programs, which are exempt in nine states in our sample, we were able to obtain lists from licensing agencies or health agencies, which either keep lists of exempt programs or had lists of these types of programs. And, finally, in 11 states in our sample, part-day preschool programs are exempt from licensing. To the best of our knowledge, the final sample frame was quite complete, except for these missing exempt part-day programs.

In conducting surveys with busy professionals such as child care providers, it is important to notify sample members of their selection for the study in advance and to follow appropriate protocols for obtaining permission to conduct interviews. On the Profile of Child Care Settings study, we mailed a packet of materials to sample providers before calling them to conduct the interview. The packet included a letter of introduction, a brochure describing the study in detail, and a worksheet letting them know what kinds of questions might be asked that would require advance preparation. For some providers in the sample, we found it was necessary to obtain formal approval from a central office before conducting the interview. By following these procedures, we were able to get fairly high response rates. Among Head Start programs we were able to interview 98% of the programs that were selected for the sample; in public school programs, 95%; in other center-based programs, 86%. Among regulated home-based provides our response was 87%.

A brief description of the topics covered in the Profile of Child Care Settings study will give you a sense of what is going to be in our final report. The interview included questions on the following: general administrative characteristics, such as legal status and sponsorship, as well as operating schedule and financial characteristics; admission policies and recruitment strategies; enrollment and the characteristics of the children served: the number of children, their ages, ethnic status, and the income levels of their families; vacancies and turnover in enrollment; numbers of staff, their characteristics and qualifications, their salaries and benefits, and teacher turnover; program goals and structure, including group sizes, child/staff ratios, program activities, and other services offered by the programs; fees charged to parents and the subsidy programs in which they participate; operating experiences relating to their licensing in the case of center-based programs and, in the case of home-based programs, conflicts between family responsibilities and their child care business. Although as similar as possible, we used a different questionnaire for the family day care providers and the center-based programs, necessitated by the fundamental differences between those types of care.

Preschool Enrollments Among Low-Income Children *Sandra L. Hofferth, Sharon Gennis Deich*

Parents, policymakers, and scholars alike are concerned about the well-being of young American children, especially children from low-income families. An increasing number of preschool children live in poverty and reside in single-parent households. In 1990, 21.6% of all 3- to 5-year-old children were living in poverty. The proportion is even higher for minority preschool children: 46% of Black preschoolers and 37.6% of Hispanic preschoolers live in poverty (U.S. Bureau of the Census, 1990). The large number of children in low-income families presents policy makers with two interrelated challenges. First, the availability, affordability, and

quality of care is likely to determine whether low-income mothers seek job training and employment or remain on welfare. Recognizing this problem, a variety of federal, state, and local programs are subsidizing care for children from low-income families. Most recently, the Family Support Act of 1988 required that child care be provided or fully subsidized for all children when their mothers are participating in the JOBS program and for a one-year transitional period after they begin a job. Findings from the National Child Care Survey (NCCS) (1990) suggest that these programs have had an effect on the use of center-based care by low-income children. In fact, preschool children from families with annual incomes below $15,000 are more likely than children from families with incomes between $15,000 and $24,999 to have their preschool children in a center-based program (Hofferth et al., 1991). The second challenge for policy makers is to improve the long-term well-being of low-income children. Research shows that poor children who attend good preschool programs like Head Start are better prepared for school, which is a prerequisite for future success (see Hayes et al., 1990). Thus, early childhood programs in general and Head Start in particular are being expanded. The 1990 reauthorization of Head Start increased funding substantially with the intent of serving all eligible 3- to 5-year-old children by fiscal year 1994 (Family Impact Seminar, 1991). This paper examines enrollments in Head Start and all center-based programs for preschool children in low-income families. We will discuss preschool enrollments according to the age of the child, employment status of the mother, family income, poverty status, participation in the AFDC program, family structure, and race.

METHOD: The data for this analysis come from the National Child Care Survey 1990, a study funded by the Administration for Children, Youth and Families in conjunction with the National Association for the Education of Young Children. The National Child Care Survey 1990 (NCCS) provides information on all preschool and school-age programs and child care arrangements used by U.S. households with children under the age of 13. This nationally representative survey collected detailed data for up to four children in each household. The NCCS supplemented the main survey with a sample of 500 households with annual incomes below $15,000. Families with income below $15,000 per year represent the lowest one-fifth of U.S. families. Together these data sets contain information on over 900 low-income families.

This paper focuses on a subset of the NCCS data: children between the ages of 3 and 5 who have not yet started school and who come from families with incomes below $15,000 per year. First, since this paper examines preschool enrollments, children attending school have been omitted from the analysis. In the original sample, 24% of all children age 3 to 5 are already enrolled in school. As such, 63% of 5-year-old children, 6% of 4-year-old children, and no 3-year-old children are excluded from the sample.

RESULTS: The following analysis details enrollments in Head Start and center-based programs for preschool children from low-income families. For this analysis, we categorize preschool arrangements according to whether a child is enrolled in a Head Start program and whether a child attends a center-based program. Because children may be in multiple programs, enrollments in Head Start and centers are not mutually exclusive. For example, a child may be in Head Start and a center-based program, or just in Head Start, or just in a center. Therefore, we also examine preschool arrangements by combining Head Start and center-based programs into a third category: enrollment in either Head Start or a center-based program. This third category is a summary indicator of enrollment in any preschool program called "all programs." Note that this summary indicator may slightly underestimate enrollment across all possible types of preschool programs.

Enrollments by Age of Child: Almost 41% of all 3- to 5-year-old children from low-income families were enrolled in some type of center-based program, including Head Start. Enrolled are 26% of 3-year-olds, 51% of 4-year-olds, and 55% of 5-year-old children. The pattern for Head Start enrollment is somewhat different from enrollments in all programs, with the highest rate of enrollment among 4-year-old children (27%). This is to be expected as 4-year-olds are the target group for this program.

Maternal Employment Status: For the purpose of this analysis, we categorize maternal employment in one of three ways: employed, either full-time or part-time; enrolled in an education or training program; or nonemployed. Attendance in preschool programs varies dramatically with the employment status of the mother. Children whose mothers are enrolled in education and training programs are more likely to be in some type of preschool program (70%) than children with employed mothers (44%) or children with non-employed mothers (33%). There are no significant differences in use of center-based care between mothers employed full-time or part-time. Due to the small sample of Head Start children with employed mothers, it is not possible to test for differences by part-time versus full-time employment for this program.

Head Start enrollments also vary with maternal employment status. Like preschool programs in general, children whose mothers are in education and training programs are most likely to be enrolled in Head Start (35%); however, unlike the pattern for all programs, children of nonemployed mothers use Head Start more often than children of employed mothers (20% versus 9%). There are three possible explanations for this finding: 1) Head Start programs give priority to children according to income; the poorest children have first priority. It is likely that families with nonemployed mothers have less income than families where the mother is working. 2) Head Start has a large parent component to the program requiring parents to spend time in and out of the classrooms. It may be too difficult for working parents to juggle the demands and schedules of Head Start and employment. 3) The majority of Head Start programs operate on a part-day basis; employed mothers, especially those working full-time, may prefer programs that provide longer hours of care.

Family Income: There is little variation in enrollments in preschool programs by income level per se among low-income families. The only significant variation in Head Start enrollments is between the highest income level and all other levels of income. Only 11% of children from families with incomes over $12,500 are enrolled in Head Start. By comparison, nearly one-quarter of children in families with incomes below $12,500 are enrolled in the Head Start program. This finding is not surprising because Head Start programs give priority in enrollment to children from the poorest families.

Poverty Status: Poverty status is a better indicator of economic well-being than income alone. In 1989, the poverty level for a family of four was $12,675. Almost 70% of the sample of 3- to 5-year-old children in low-income families live below the poverty line. Head Start enrollments are almost twice as high for children living in poverty (20%) than for children from families with incomes above this level (13%). As was the case with family income, there is no significant variation in combined preschool enrollments according to poverty status; however, for both poor and non-poor families, enrollments in preschool programs vary by maternal employment status. For poor families, a much larger proportion of children with employed mothers (35%) attend a center-based program than of children of nonemployed mothers (18%). This is not the case, however, for those enrolled in Head Start, where the proportion of poor children with employed mothers is almost identical to the proportion with nonemployed mothers (19% and 21%). This finding lends credibility to the hypothesis that family income is the most important determinant of Head Start enrollment. It also sheds doubt on the hypothesis that working parents are not able to juggle the demands and schedules of Head Start and employment. (To completely rule out this second hypothesis one needs to examine not only employment status but the number of hours spent at work.)

For non-poor children, like poor children, a higher proportion attend center-based programs when the mother is employed. Head Start is again the exception to the rule; only 9% of non-poor children with employed mothers, compared to 21% of non-poor children where the mother is not employed, are enrolled in this program.

AFDC Participation: Among this sample of low-income children, 16% are currently receiving AFDC, another 39% received AFDC sometime in the year prior to the interview but not at the time of the interview, and 44% did not receive AFDC benefits during the past 12 months. Enrollment in Head Start and center-based programs increases dramatically with participation in the AFDC program. Almost twice as many AFDC children are enrolled in Head Start and center-based programs than their non-AFDC counterparts. For those children on AFDC, 28% are enrolled in Head Start and 43% attend center-based programs. By comparison, 13% of non-AFDC children are in Head Start and 28% are in center-based programs.

Whether the mothers of these children are employed or in training affects enrollments in center-based programs. Of children not currently on AFDC (but on sometime last year), a much higher proportion with mothers that are either at work or in training are in center-based care (almost 40%) than of children of nonemployed mothers (14%). For those currently on AFDC, the differences are not as large; 49% of children with an employed mother, as compared to 37% of children with a nonemployed mother, are in center-based care. Head Start enrollments do not vary substantially by maternal employment status for children who are currently receiving AFDC or who received AFDC during the past year. Yet, among children who did not participate in the AFDC program at all, only 10% of those with mothers at work or in training and 17% of those with nonemployed mothers are enrolled in Head Start.

Family Structure: Overall, 49% of children from single-mother families are in some type of preschool program (Head Start or center-based), as compared to 31% of children from two-parent families. Head Start enrollment varies with the composition of the family. Twenty-one percent of children from single-mother families are enrolled in Head Start, as compared to 14% of children from two-parent families. There are also significant differences in enrollments by the employment status of the mother, controlling for family structure. Ten percent of children from two-parent, dual-earner families are enrolled in Head Start. The proportion is nearly identical -- 11% -- for families with one employed and one non-employed parent. By contrast, more than twice as many children -- 23% -- from families with two non-employed parents are enrolled in Head Start. Center-based enrollments also vary by parental employment status among children from two-parent families, but in the opposite direction. Children in dual-earner families are more likely to be in a center-based program than children with one or two non-employed parents (28% compared to 17% and 21%, respectively). Enrollments in Head Start and center-based programs also vary by the employment status of the mother among children from single-mother families. Children of non-employed single mothers are almost three times as likely to be enrolled in Head Start than are children with employed mothers (27% compared to 11%). Similar to the pattern for children in two-parent families, children of employed single mothers are much more likely to be in a center-based program than children of nonemployed single mothers (46% versus 28%). These enrollment figures show that program enrollments are very similar for two-parent families where neither parent is employed and for non-employed single-mother families, and suggest that the employment status of the parent(s) and economic status of the family are more important indicators of program usage than is family structure.

Race: A higher proportion of low-income minorities, both Black and Hispanic, are enrolled in Head Start than low-income white children. The data show that 30% of Black children, 19% of Hispanic children, and 11% of white children are enrolled in a Head Start program. The pattern is quite different for children using center-based programs. Almost equal proportions of white and Black children, 30% and 34% respectively, report use of a center-based program. A lower proportion of Hispanic children, 17%, are enrolled in center programs.

When both race and maternal employment status are considered we see further differences. Among Black and white children, Head Start enrollment does not vary much with the employment status of the mother. This is not true for Hispanic children,

where only 11% of children with a mother either at work or in training are enrolled in Head Start, as compared with 26% of children with non-employed mothers. For Black children, there is again no difference by maternal employment status in center enrollments; however, there are large differences in the proportion of children, both white and Hispanic, enrolled in center-based programs by maternal employment status. Almost three times as many white and Hispanic children with mothers either at work or in training are enrolled in center-based programs, compared with children of non-employed mothers.

DISCUSSION: It appears that there are many factors that influence enrollments in preschool programs. Income, employment, race, family structure, and participation in AFDC are all associated with enrollment in center-based programs. These factors are also related to each other. The most striking finding is that for preschool programs of all types, the highest enrollment is found among children whose mothers are in education and/or training programs (70%). These children are enrolled in centers almost twice as often as children with employed parents (45%), or children with non-employed parents (33%). This finding may be a direct result of federal, state, and local efforts to assist low-income families in becoming economically self-sufficient. Family income appears to be the main determinant of enrollment in Head Start. For children in poverty, which is the target group for the program, enrollments are nearly identical for children of employed and non-employed mothers. Policymakers are concerned that the part-day, part-year status of the majority of Head Start programs may make participation in the program difficult for children with employed parents. We find no evidence of this; however, future research needs to examines both the number of hours the mother works and other arrangements used by the family before any conclusions can be drawn.

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Discussion *Craig Ramey*

I am truly awed by what you have done on a variety of levels. I am going to couple the comments for the two presentations, because the presentations themselves reflect a crafty collaboration that I think was really quite creative. It allowed something to be done that this country badly needs. We are in tremendous need of good behavioral epidemiology on both the care arrangements, the quality of care in those arrangements, and ultimately the consequences to families and children who participate in the various arrangements that are made. We do not have a good epidemiology in the field of child and family development. It is one of the areas in which we are weakest. It is a weakness that continually confounds many of us. In the absence of good, strong epidemiological information, we are at a tremendous disadvantage to present for discussion and rational forums what the nation is like, the magnitude of the issues we are facing, and how we should go about addressing that. Kisker and Hofferth have not only brought forth the most sophisticated behavioral epidemiology that I know of in child and family investigations, but that they have shown a model of how it is that one can bring high-quality science to the public policy realm.

First, congratulations on the scope. My guess is that there are some power calculations and other niceties behind the determination of sample size, that your 272 sites allows you to have linkage among variables with levels of confidence, attached to estimates of levels of variables that would really be quite high. The fact that it is truly a representative sample of the United States is just first-rate. You were able to get 100% of the states to agree to participate, and an overall 88% response rate from public, private, and other kinds of groups, with a range of only 87% to 98%. That is what good science is all about! It is not making excuses for why the numbers have holes in them. It is doing the legwork required to bring the numbers in, so that apologies are not necessary -- and you have done that. The range of topics covered in your survey questionnaires -- and by inference the range of detailed information subsumed under each of those topics -- is heartwarming. We should know something about how people chose, what they chose, how much they paid. We should know it at a level that is not impressionistic, that is not a rating of how satisfied you are on a scale of one to five, but at a level of measurement that we frequently do not see in social and behavioral science and that we desperately need. We need good, hard counts of numbers, and in many cases that is exactly what you have. Oversampling of subgroups that are expected to have particularly problematic courses. I can only underscore a hundred times the fact that you are making your data tapes available for general use to other researchers in such a timely manner. It is rarely done. We have a history of treating our publicly funded research as if it is the private enterprise of the principal investigator conducting the research. We can sometimes drag our feet longer that is conscionable in producing reports and getting useful information into the public realm of discourse. And you have chosen not to do that. You have acted upon it and I think you are to be applauded. I cannot wait to see your data.

RETAINING THE BENEFITS OF EARLY CHILDHOOD EDUCATION FOR DISADVANTAGED CHILDREN

Chair: **Elizabeth Farquhar**; *Discussant:* **Willie Epps**

National Study of Preschool-to-School Transition *John M. Love, Mary Ellen Logue*

In 1989-90, surveys and site visits were conducted with public schools to obtain descriptive information on their prekindergarten and kindergarten practices and on any transition activities implemented to help children make the transition into kindergarten. The focus of the study is on transition activities, which function to bridge the gap between children's experience prior to school and their experience in kindergarten. The aim of these activities is to create better continuity (or to reduce the discontinuity) between the prekindergarten and kindergarten experiences of children. Nationally representative samples of schools were surveyed, and eight schools participated in in-depth site visits. Although the findings cannot be presented until the full report is released by the U.S. Department of Education, this paper presents the issues that are addressed in this study.

Although there are lots of transitions in life, this study is concerned with one of the more important ones -- the transitions children make when they begin formal schooling, usually when they enter a public school kindergarten. We use the term "transition" to refer to the activities designed to create continuity if it does not already exist. Continuity refers to the degree of consistency as it is experienced by the children. We are not simply interested in providing more transition activities, but in doing things that create greater continuity of experience for children.

There are three important facets of continuity we need to be concerned about (Kagan, 1990): philosophy (e.g., of learning, or role of parents, values), pedagogy (e.g., instructional approach, classroom activities), and structure (e.g., program regulations). It is also important to recognize what continuity does not mean. It does not mean that things stay the same for the child, that there is no developmental progression, that the same learning tasks occur at both levels, that there is no increase in complexity, or that there is an absence of challenges for the child. Furthermore, concern with continuity does not mean we are not interested in the program content. This means we have to be concerned with the quality of the prekindergarten and kindergarten programs, not just their continuity or consistency. We would never suggest, for example, that a child from a low-quality preschool program with poorly trained staff and one adult working with 20 children in the class with inadequate space and learning materials should go into a kindergarten like that just so there would be consistency!

Recent events make this study particularly timely. The White House and the National Governors' Association have announced their education goals, the first of which is to ensure that young children succeed in school. A part of that success may well be their experience with the transition into kindergarten. Changes are underway in early childhood practice, with impetus from the National Association for the Education of Young Children promoting developmentally appropriate practice -- changes by schools mean adjustments by children. This emphasis is increasingly accepted by other influential organizations, such as the National Association of Elementary School Principals. There are a number of prekindergarten initiatives that are altering the experiences children have before they enter school. These include expansion of Head Start programs, increased state funding for prekindergarten, and increased emphasis by Chapter 1 on prekindergarten. It is also important to study this particular transition period because of societal changes that are changing the experiences of the children entering school. More children now have some form of prekindergarten program experience than ever before. And the impact of family poverty level on these experiences is dramatic. There is evidence that kindergartens are increasing their focus on academic skills and becoming more like first grades used to be. If at the same time preschools are becoming more developmentally appropriate, then these institutional changes are increasing the discontinuity children are likely to experience. Finally, this is an important transition to study because of the many crucial ways in which children are changing at this age -- what I think of as the "developmental agenda" of 4- and 5-year-olds.

The study focuses on describing and analyzing the transition activities provided by public schools, but also presents extensive information on the kindergarten programs children are entering, the public school programs children are coming from, the difficulties children have adjusting to kindergarten, and the school and district context in which the transition activities occur and factors that influence the schools' transition activities. In this study we looked at whether children come from home or from a program, the adjustment to kindergarten, the immediate classroom environment children go into (e.g., curriculum, class size, ratio), characteristics of the school environment (climate, parent involvement), district and school policies and procedures (e.g., testing, entry criteria), and the size and poverty level of the school (or district). Then we examined what schools are doing to help children with the adjustment to kindergarten. We cannot discuss the findings at this point, but we can discuss issues we became aware of as we proceeded with the study.

There are three critical issues we have become very conscious of that are important to consider when implementing or studying transition. One of the major issues is the importance of context. Different structural arrangements create different challenges for those who are interested in creating better continuity for children. Four different structural arrangements exist in public school settings: 1) preschool is not part of the school (different location and different administration); 2) preschool is not in schools, but a network is created to provide for the transitions; 3) preschool is in the school, but there is not complete pedagogical continuity; and 4) an early childhood unit, with continuity from pre-kindergarten through third grade. A second issue is resources available in the school. Transition activities take personnel, time, and energy. Some schools may benefit from the presence of programs, such as Head Start

or Chapter 1, that provide resources that may often be used to further the aims of transition. One example is that someone in such a program may be designated as responsible for parent involvement; this person may be able to encourage and implement transition activities in the course of supporting parent involvement in the schools generally. A third issue is more attitudinal, and involves how we conceptualize transition activities. If we think of them as discrete activities, such as a child/parent orientation meeting, or just as the transfer of records from preschool to school, then we are less likely to consider a wider range of activities and processes that should occur together. If we are to create real continuity for children, then transition has to be treated as a process and not as separate events.

Working with Families: Promising Programs to Help Parents Support Young Children

Barbara D. Goodson

The study collected detailed information from 17 family education programs. Seven programs, which represent a variety of fully implemented models for families of preschool and early elementary students, were studied in-depth through on-site visits. Data collection methods included observations of program activities and interviews with program staff, local school staff, and participating parents. The remaining 10 programs, which were examined through telephone interviews with program staff, were also identified as promising models, but were less fully implemented or evaluated. Below, the seven in-depth sites are briefly described, followed by the programs examined through telephone interviews.

Early Childhood Family Education (ECFE), Minnesota Department of Education: ECFE is a state-funded, center-based program designed for children from birth to kindergarten that operates in more than 300 school districts in Minnesota. The program is available to all families, with the goal of serving hard-to-reach families in proportion to their representation in the community. On average, parents and their children spend two hours a week at centers located in housing projects, low-income apartments, store fronts, and former elementary schools. Classes include parent-child activities supervised by early childhood educators, parent-to-parent discussions facilitated by a parent educator, and children's activities to promote cognitive and motor development.

Home Instruction Program for Preschool Youngsters (HIPPY), Miami, Florida: HIPPY is a home-based program for parents of children 4- and 5-year-olds that is designed to encourage economically or educationally disadvantaged parents to teach their young children school readiness skills at home. The program began in Israel in 1969 and was brought to the United States in 1984. The core HIPPY program consists of home visits every other week, during which the paraprofessional "Parent Partners" work with parents on sequenced activity units that parents complete with their children on a daily basis. Most Parent Partners are graduates of the program. Individual home visits are supplemented by group meetings held on alternate weeks at neighborhood elementary schools. There are 30 lessons for each year structured around key school readiness and cognitive skills such as visual and auditory discrimination, eye-hand coordination, and spatial perception. For each age group, the lessons include reading and discussing nine children's books that are given to families.

Project Home Base, Yakirna, Washington: Project Home Base, operated by the Yakima School District as one component of the district's Early Childhood Center, is designed for disadvantaged families with preschool children who have been identified as having developmental delays. The program is an adaptation of the Follow Through Parent Education model developed by Ira Gordon. Parent educators, many of whom are former teachers, make weekly visits to families' homes, working with the parent and child for 45 to 60 minutes. These visits focus on a set of home activities designed to enhance parents' teaching and parenting skills and to develop children's cognitive skills, particularly language and perceptual-motor development. Home visits are supplemented by special events and occasional workshops.

Kenan Trust Family Literacy Project, Louisville, Kentucky: The Kenan Trust Family Literacy Project is a full-day, center-based program for parents and their preschool children. The program is funded primarily through grants from the William R. Kenan, Jr. Charitable Trust of Chapel Hill, North Carolina, and is an adaptation of the PACE (Parent and Child Education) Program developed by the Kentucky Department of Education. The Kenan model builds on four activities: preschool for children; adult basic education for parents; Parents and Children Together (PACT); and Parent Time (PT). Parents and children attend the program together three days a week for a full school day (9 a.m. to 2 p.m.). For three hours in the morning, the children attend a cognitively oriented preschool program based on the High/Scope model, while their parents receive instruction in adult basic education and literacy. For at least 45 minutes a day, the parents and children play together during PACT time, with the adult education and early childhood teachers present to facilitate interaction and learning. While the children nap, parents meet for Parent Time to discuss issues, such as parenting, child development, home activities, and personal care and growth.

Project AHEAD (Accelerating Home Education and Development), Los Angeles, California: Project AHEAD is a parent-to-parent program serving disadvantaged families of children attending schools in the Ten Schools Program of the Los Angeles Unified School District, which have only minority students enrolled and are under court order to receive supplemental services to offset the effects of racial isolation. AHEAD was developed in 1977 by the Martin Luther King Legacy Association (MLKLA) of the Southern Christian Leadership Conference in Los Angeles, and currently is operated and funded jointly by the MLKLA and the Los Angeles Unified School District. Project AHEAD's parent educators, indigenous to the community and parents of successful school children, make biweekly home visits and facilitate monthly parent cluster meetings in the schools. The curriculum is based on the work of Dorothy Rich, who subsequently incorporated the ideas into a book entitled Megaskills. Parent educators introduce home activities

that guide parents in helping their children develop critical skills for success ("megaskills"), such as responsibility and self-esteem. In addition, the program works with parents on school-related topics such as reviewing report cards and preparing for parent-teacher conferences.

McAllen Parental Involvement Program, McAllen, Texas: The Parental Involvement Program, operated by the McAllen Independent School District, began with a single parent coordinator funded through Chapter 1 and now employs five parent involvement coordinators and five community aides funded through a combination of federal and local monies. Three parent involvement activities form the core of the McAllen program: STEP (Systematic Training for Effective Parenting), and its Spanish version PECES, are commercially available curricula to strengthen parenting skills; Evening Study Centers operate two evenings a week in three school sites to offer classes for at-risk students and their parents; and group parent meetings on a variety of topics such as health, school curriculum, and child development take place throughout the year at each school in the district.

There also are several broad-based programs and activities in the district that encourage parental participation in their children's education, including a parent contract, a weekly radio talk show, and school volunteer programs. In addition, individual schools choose additional parental involvement projects, such as Project Self-Esteem, lunches for parents and grandparents, and newsletters. Community involvement in public education is facilitated by the Partners in Excellence Program, in which local businesses adopt a school and provide materials and in-kind contributions for school activities.

Family Study Institute, Chicago, Illinois: The Family Study Institute (FSI) is a division of the Academic Development Institute, a nonprofit corporation based in Chicago and supported by private grants and donations. FSI has developed two parent education courses, Studying at Home and Reading at Home, designed to be adopted by individual elementary schools and offered on a voluntary basis to parents. The courses focus on helping parents establish a home environment that encourages learning and academic achievement, such as setting up a regular time and place for studying, discussing school objectives and assignments at home in family meetings, and participating in family reading activities. Each course consists of three weekly 60- to 90-minute group sessions at a school supplemented by weekly activities that parents do at home. Volunteer parents lead the sessions, guiding small groups of parents through written curriculum materials and facilitating discussions of parents' experiences with the home activities. The course materials are available in English and Spanish, and parent groups are offered in a variety of other languages with the help of parent translators.

Project FIEL, El Paso, Texas: Project FIEL is an intergenerational literacy program that brings limited-English-proficient parents and their kindergarten children together to learn literacy skills. Begun in 1985, the program is administered by the El Paso Community College and operates in eight local elementary schools. Program activities are based on a five-step model that includes informal discussions to encourage oral language, concrete learning experiences to extend oral language usage, story writing, reading books together, and at-home activities.

***Prestame una Comadre*, Springfield, Illinois:** *Prestame una Comadre* which is Spanish for "loan me a godmother," is an extension of Head Start parent involvement that is targeted on migrant Head Start families identified as high risk and who have limited English proficiency. Begun in 1984, the program utilizes social workers, or "family life trainers," who conduct home visits as often as three times per week to help parents increase self-reliance, learn about child development and educational opportunities in the home, and improve family functioning. Small group meetings are held weekly to discuss topics such as nutrition and family relationships.

PREP, Mascoutah, Illinois: PREP is a program funded by the local school district for children who score poorly on kindergarten screening tests. Four-year-olds and their parents attend classes at a high school once a week for 90 minutes. While the children are in a preschool classroom, parents observe their behavior through a one-way mirror and discuss with a parent educator the skills or concepts involved in the children's activities. Parents also take activities home that teach their children school readiness skills, such as color and shape discrimination, listening skills, and motor coordination.

Syracuse Prekindergarten Program, Syracuse, New York: Syracuse Prekindergarten Program is an early childhood program for children ages 3 and 4, with active parent participation. The program operates 20 sites in Syracuse and is funded through the New York State Prekindergarten Program as well as local school district monies. The children's program is offered four half-days per week; on the fifth day, parents participate in groups led by a social worker on topics of interest to parents (e.g., discipline, health issues) or in parent-child activities led by an early childhood teacher. Parents also are able to participate in a training program for classroom aides that requires working in the preschool classroom and attending a series of two-hour workshops.

***Academia del Pueblo*, Kansas City, Missouri:** *Academia del Pueblo* provides after school and summer classes to Hispanic children in kindergarten through fourth grade. The program was developed by the National Council of La Raza, which works with community-based organizations to improve education for Hispanic students, and operates at the Guadelupe Center, a multiservice organization in Kansas City. The program for children includes instruction in language arts, reading, and mathematics, as well as enrichment activities for two and a half hours twice a week. For parents, the program offers monthly parent groups and classes in reading and family literacy three times per week.

Family Math (sites nationwide): Family Math is a program that brings together children in kindergarten through eighth grade and their parents to participate in problem-solving and hands-on math activities to reinforce and complement the school curriculum. The program was developed in 1981 at the Lawrence Hall of Science, University of California at Berkeley, to help children and their

parents see mathematics as an enjoyable and active pursuit. Weekly classes lasting about an hour are held in four- to six-week cycles and are taught by teachers and parents who have received training to be Family Math instructors.

Kuban Parent Involvement Program, Phoenix, Arizona: Kuban Parent Involvement was designed by the school administration and teaching staff to increase parent involvement in school activities and encourage home learning in an inner-city school district where the dropout rate is nearly 65%. Teachers run the program for parents of students in kindergarten through third grade. Parents attend quarterly training sessions that focus on the skills students learn in school, classroom objectives, and ways parents can help at home. Teachers also make home visits as needed.

Parents in Touch, Indianapolis, Indiana: Parents in Touch is run by the Indianapolis Public Schools and consists of a range of activities to increase parent involvement and improve home-school communication, including activity calendars for children; student/teacher/parent contracts and work folders; dial-a-teacher telephone line available five nights a week to provide help with homework; parent line/communicator where parents can hear a recorded message about school activities; and a series of workshops on parent education. In addition, the district has implemented Family Math as well as the TIPS-Math and TIPS-Science programs.

TIPS-Math (sites nationwide): TIPS-Math was developed by researchers at Johns Hopkins University to involve parents in their children's mathematics homework, increase communication between the home and school about mathematics work, and improve students' mastery of mathematical skills. The structured materials include information to parents from teachers about classroom activities as well as a set of activities for families to complete at home.

Activity Book and Toy Lending (ABT) Program (Maryland Department of Education): ABT is a set of activities, books, toys, and games that parents of children in preschool through second grade can use to reinforce and extend school learning. The program began in 1980 in Frederick County and is now available to all districts in the state through funding from the Maryland Department of Education. There are two modes of participation: the Club System, where parents sign a contract to work with their children at home and children receive a prescribed kit to take home weekly or biweekly, and the Check-Out System, where parents visit a resource center to take home materials to use with their children.

SUMMARY OF PROGRAM CHARACTERISTICS: Not only do these 17 programs represent a variety of approaches to family education, most programs also utilize multiple strategies in order to work effectively with families who have very different skills. Four programs use home visits as their core mode of service delivery; three of the four supplement home visits with group parent education and support services. Six programs use parent/child classes as the main parent education activity; four of these also hold parent education and support sessions. Five programs provide parent education primarily through group parent sessions. Each method of working with families offers both advantages and disadvantages.

Home visits confer one set of advantages in terms of establishing an intimate, helping relationship between the parent and a teacher/advisor and providing an opportunity for one-to-one demonstration by the visitor of teaching methods and ways to interact with children; home visits also require relatively few group social skills. Joint parent and child classes provide parents with multiple role models through interaction with other parents, and provide the opportunity for staff to observe parent and child together and suggest alternative ways of teaching and interacting in an educational setting; classes do require parents to come to a center or school with their children and become part of a group. Group parent sessions provide the possibility for parent-to-parent support, group membership, and development of group process skills; however, group sessions may require parents to have the self-confidence to speak up in a group and relate to other adults.

Curricula and instruction also vary across the programs, and there is no evidence that one content or method is most effective or is best for all families. For most of the programs, the parent education curriculum builds on parent/child activities that are intended to encourage positive family interactions and promote child development and achievement. A subset of programs has a set of predefined parent/child activities with accompanying written materials as the core of the curriculum. For example, HIPPY/Miami follows the curriculum developed by the national HIPPY program, which includes 30 sequenced lessons based on key school readiness and cognitive skills. The curriculum for Project AHEAD is based on a set of monthly "Appetizers," or home activities linked to Dorothy Rich's Megaskills. Project Home Base has developed a collection of more than 200 home activities that parents can use to teach their children cognitive concepts and verbal skills. The Family Math program uses hands-on activities to encourage parents and children to work together on mathematical concepts.

These successful programs share a concern about being responsive to differences among families, and this is reflected in their curricula. Programs individualize and adapt curriculum and methods to family needs by providing bilingual staff and materials for non-English speaking families, addressing cultural values that relate to parent involvement in schooling, and being sensitive to crises and changes in the family's home situation that may require immediate attention.

IMPLEMENTATION PRINCIPLES: The goal of this study was to describe and analyze the strategies that promising family education programs use to recruit disadvantaged families, sustain parent involvement, staff programs, and establish positive relationships with the schools. These topics were identified by a national advisory panel at the start of the study as key challenges to family education programs. The findings offer guidance for future program development and implementation.

Recruitment: Recruiting disadvantaged families who have had limited or negative involvement with schools is a difficult task for family education programs. Programs that have as their goal the recruitment of the more isolated or hard-to-reach families have a harder time recruiting than programs with universal eligibility. To motivate and encourage families to participate, these family education programs employ a number of common strategies. 1) Use a variety of recruitment techniques. The most common recruitment methods are current or former participants recruiting others in their neighborhood, brochures or letters sent home with school children; visits by program staff, door-to-door recruitment, and posters in community locations. For example, in the Kenan program, flyers and notices are posted at several large employers, in churches, housing projects, gas stations, social service agencies, and kindergarten registration. The Minneapolis ECFE program hangs banners from public buildings, announcing a name and telephone number to call. 2) Use person-to-person methods to encourage hard-to-reach families to participate. All programs report that the most effective recruitment device is personal contacts, usually from people in the community. Personal contacts are particularly important for parents who have little positive contacts with schools, are recent immigrants with no previous contacts with American schools, or whose cultural traditions have limited parent involvement in schooling. In Project AHEAD and HIPPY/Miami, recruitment is facilitated by parent educators who live in the community. In programs that do not hire staff from the community, links are made through individuals in schools, churches, housing projects, and community organizations. 3) Provide information that does not require advanced literacy skills and is available in languages other than English. Brochures describing the programs are available in multiple languages. Furthermore, successful programs build on approaches that are familiar to the cultural groups being recruited, such as Spanish radio programs and neighborhood sound trucks.

Sustaining Family Participation: Once families agree to participate, sustaining their involvement is the next challenge. Family education programs have developed combinations of design components, services, and staffing that encourage continued participation by families. 1) Maintain flexibility in program operations in order to be responsive to families by meeting parents at a variety of locations and times and accommodating the "temporary dropping-out" and re-entry of program families. Project AHEAD and HIPPY/Miami both alternate individual home visits and group meetings in schools; ECFE centers include housing projects, low-income apartments, and store fronts. 2) Emphasize direct benefits for parents, including improved education and employment opportunities. For example, a central focus of the Kenan program is its adult literacy component that helps parents work toward the GED certificate; McAllen offers English language classes; and Project AHEAD encourages parents to attend weekend literacy classes. 3) Define objectives for parents in concrete and realistic terms, beginning with objectives that can be quickly and easily achieved. Immediate results are particularly important for families who are distrustful of school staff or who have had negative school experiences. 4) Be responsive to families' multiple needs, either directly or through referrals and personal ties with other public and private agencies. Project Home Base arranges hearing tests and eye exams for participating families. In ECFE and the McAllen program, health information is presented at parent group meetings. Staff in a number of programs refer, and even accompany, families to neighborhood health centers for medical care. 5) Incorporate tangible rewards for participation, ceremonies and rituals, and products with the program's logo or motto. Many programs use the program name, logo, or motto on items such as stickers, balloons, pins, refrigerator magnets, ribbons, pencils, book marks, T-shirts, and coffee mugs. Project AHEAD gives each family a cardboard storage box and study carrel with the program's name and logo. HIPPY/Miami and FSI have graduation ceremonies, and the McAllen program presents certificates of participation for attending at least four STEP/PECES sessions. 6) Create an environment for parents to develop new friendships and social support, as well as to improve their own self-expression skills. The ECFE and Kenan programs both emphasize the importance of providing parent support groups that are facilitated by project staff.

Staffing: Staff qualifications and characteristics are identified over and over again as critical to high-quality programs. One of the most important staffing decisions is whether staff are professionals or paraprofessionals. Most of these programs employ some paraprofessional staff from the communities being served. A few of the programs use only paraprofessionals to work with families. Programs reflect the following staffing principles. 1) Recognize the value of hiring paraprofessional staff and community members who share the culture of the target population and are able to establish mutually respectful and trusting relationships with parents. McAllen and *Prestame una Comadre* employ professional staff who are native to the community; HIPPY/Miami and Project AHEAD hire paraprofessionals from the community to serve as home visitors. A number of programs employ paraprofessional aides in preschool classrooms. 2) Enlist school staff to help operate the program, particularly in programs for families of elementary school students. The district-wide parent involvement programs -- McAllen and Parents in Touch -- were developed by district staff and use district teachers to lead some of the family education activities. The Kuban and TIPS-Math programs depend on school teaching staff for program implementation. 3) Utilize paid staff to a greater extent than volunteers. In general, few programs depend on volunteers as primary teaching staff. Two exceptions are the FSI courses and the Maryland ABT programs. FSI depends entirely on unpaid parent volunteers to lead the parent group sessions; the ABT program utilizes the district Chapter 1 liaison and parent volunteers. 4) Provide training for staff and the opportunity for ongoing, frequent staff communication. All programs conduct regular in-service training, either weekly or biweekly, as well as more intensive training at the beginning of each year.

Relationships with Schools: The involvement of schools in family education programs is a major development in the field, which offers certain benefits both for the programs and the schools. Advantages of the collaboration include access to school resources, such as federal funding, administrative support, and in-kind donation of space and facilities; and connecting with families, particularly in areas where the schools have a more positive image than other social service agencies, which may increase parents' acceptance

of the program and also lead to greater understanding by school staff of parents' attitudes and behavior. For example, in Project FIEL, staff report that program retention is higher in sites located at schools rather than separate centers because school staff encourage participation in the family education program. In HIPPY/Miami and McAllen, the fact that the parent educators work for the school district gives them more credibility and respect among families linking home and classroom instruction through parent group meetings and, less frequently, through home visits. TIPS-Math and Family Math were created to extend classroom instruction to family learning experiences. In Project AHEAD, parent educators review student report cards with parents and prepare them for parent-teacher conferences, and provide activities to ease the transition from early childhood programs to kindergarten. For example, HIPPY/Miami staff bring children into kindergarten classrooms in the spring prior to school entry. ECFE is beginning to do the same in some districts.

In general, collaborations with school districts occur at the administrative level rather than the classroom level; close ties between the programs and classroom teachers are difficult to build. Other challenges that family education programs face in collaborating with schools include accommodating adults and very young children as students, sharing space and facilities, and adhering to district personnel regulations. To facilitate collaboration with the public schools, these programs do the following: 1) Stress that family education is a complementary, not competing, district goal. For example, FSI staff make it clear to teachers that their parent groups are intended to help parents create a structured environment for learning that can be applied to any subject area, and not to teach content specific material. 2) Build support for the program from district and school administrators. In the Kenan program, school principals are involved in hiring project staff; in McAllen, parent involvement is a district-wide goal and one criterion for staff evaluations. 3) Acknowledge that the location of both the administrative offices and program activities make a difference in terms of district integration and support. When program staff and activities are located within the main school or district space, programs seem to be better connected with other district programs than when housed in satellite space.

Establishing Program Effects: With limited resources, programs typically collect information to document program activities and indicate areas for program improvement. Few family education programs studied have carried out summative evaluations with rigorous, experimental designs. More extensive and rigorous evaluation research, which is badly needed in the field, will have to come from the wider research community rather than from the programs themselves. The programs in the study, nevertheless, offer strong evidence that their approaches can be successfully implemented in sites other than where they were developed. Program experiences suggest some factors involved in successful transfer: an administrative organization or agency to provide technical assistance and staff training; adequate funding for program adoption; and well-developed curriculum materials.

FUTURE ISSUES AND CHALLENGES FOR FAMILY EDUCATION: Discussions with program directors identified a number of future issues and challenges for family education: developing stable funding for both program operations and summative evaluation; designing training for paraprofessional staff; training school staff to work more closely and productively with disadvantaged and multicultural families; integrating family education programs into the existing K-12 curriculum in schools; and adapting to changing demographic trends.

While the 17 promising programs studied are only a subset of the many family education programs currently being implemented, including other strong models, they offer examples of how family education can be provided to diverse populations in a variety of settings. Examination of their implementation has provided rich information on principles of practice that are shared by successful programs. As the interest in family education, family involvement, and family-school cooperation grows, this information can provide a foundation for developing family education initiatives.

Discussion *Willie Epps*

My own experience is from a practition standpoint. I direct the Southern Illinois University Head Start program where we serve about 1,100 children and their families. I want to make some observations about the things I have heard in the two papers. First, I think there is too much responsibility placed on preschool programs, especially programs like Head Start and other preschool programs, in getting children ready to enter public schools. I tnink there ought to be a shared responsibility of the school district and the preschool program. My second observation is that there is a monster out there in terms of a bureaucratic structure that is making sure that the children who leave our program will fit the school system, rather than the school system making itself ready for our particular children. I heard that transition is a process. It is a process, it is not a curriculum. It is not something that must be planned. It is a very valuable experience for children, parents, and also for the preschool staff. We believe in developmentally appropriate programs, curriculum. But then you look at the kindergarten program. Maybe there are too many academic demands being placed on these programs, that the curriculum is driven by tests. In talking about Goodson's work and family education, I am not sure that you want to place a sophisticated research design on which approach or method or content works best in family education.

What we have learned in working with families is that it takes a variety of approaches. In 1960, when the U.S. Office of Education wanted to know which reading approach worked the best. They found out in all their approaches that it is the teacher that is the key. We have to look at what motivates parents. It could be the Dorothy Rich curriculum. It could be the Keenan curriculum. It is whatever program works and is effective with parents. And we have used a variety of approaches. One of the most difficult jobs in working with parents is getting parents to participate. Several years ago, I was told in Head Start that the way you get parents to

participate is to feed them. That is no longer true today, so we have to use a variety of approaches to get parents to participate. Probably the most effective way is getting parents through word of mouth, getting parents to recruit parents. I heard this morning that the effective preschool depends upon variables other than the cognitive kinds of things. One of the strongest factors that we have is parent participation, parent involvement. There is a correlation between children's success in public school and parent participation.

For those of you who are in research, let me offer you three challenges in terms of how you can help those of us who are practitioners. First, social mobility and the whole mobility of children. Follow up on these children when they leave preschool and go into public school. One of the things that we found is that they may enter one public school this year and next year they may be in 20 different public schools. This has implications. I think that children will not retain what they have learned in preschool if they continually change schools. That is an environmental issue that we are going to have to look at. That is an excellent research piece for some of you. Second, are schools ready to receive children? We need to look at the structure, the philosophy, the pedagogy that Love talked about. The third issue is whether there is a significant difference in how successful children will be coming from public school preschool programs versus coming from other preschool programs, such as Head Start, day care programs. We need to see whether these children make a smoother transition versus those that are already in the school. The research shows that there is a combination of networks going on in the public school. If they are in the public school, there ought to be a smoother transition. There needs to be further study.

Roundtable 207 FROM RESEARCH TO PRACTICE: EVALUATION OF A SUBSTANCE ABUSE PREVENTION PROGRAM FOR HEAD START FAMILIES

Organizer: **Ura Jean Oyemade**; *Chair:* **Susan Weber**; *Discussant:* **Ed Young**

Introduction

SUSAN WEBER: There are three principles that guide what we have been doing in Head Start on substance abuse. I think the project that is going to be discussed this morning fits in nicely with these principles. One is that we are trying to work on things that we think are appropriate to the role of Head Start. The second thing is that, if Head Start is going to tackle the problem of substance abuse, they have to look at it in a comprehensive way. They cannot just look at it by saying we'll have a parent education program, or we'll have a prevention curricula in the classroom for children, or we'll put information packets together. They really have to consider the whole program and how everybody in the program -- the leadership and the management team -- can work together to be able to help families and children who have issues that relate to substance abuse. The third principle is that we are very concerned that Head Start grantees focus on what is going on right now with the children and the families and not worry about whether the children may or may not have been prenatally exposed to alcohol or drugs. We have been encouraging grantees not to worry so much about the past, but to think more about what is going on with the child right now, about the kinds of issues the child is facing. Is the family currently involved with alcohol and drugs? What can the Head Start program do to work with that family and with those children?

URA JEAN OYEMADE: The minority scholars began meeting in 1983. When we started looking at Head Start and what could be done to enhance its effectiveness, we began to look at the changing demographics and the trends that were taking place or had taken place since the inception of Head Start. We noted many different characteristics. Parents were younger; parents were having many more problems than they previously had had; and one of those problems was substance abuse. We thought it would be appropriate if we could develop a prevention strategy for parents that would address the issue of substance abuse -- something that would expand parent involvement in Head Start and then address a specific problem area. We teamed up with the National Head Start Association and the Office for Substance Abuse Prevention to develop this project. Their goal, similar to that of Head Start, was prevention. We developed some basic principles that we felt should be used as guiding principles. There are six, and they are specific to at-risk populations in general and minority children in particular. First, the primary focus should be on the parents, because they are the primary influence on their children, particularly during the preschool period. Even though the children spend a lot of time with their teachers, the parents are the ones who have the most influence. Second, the materials should be developmentally appropriate. It would be more appropriate to help a 4-year-old learn the difference between drugs and candy, rather than telling them the difference between heroin and cocaine. The focus was not on "these are drugs and you shouldn't use them," but more on safety. Another important aspect is that the substance abuse program might not even be perceived as a substance abuse program, because the focus would be on several risk factors. Many of the items that would be components of our curriculum have already been incorporated into many of the Head Start programs. These overlapping items would be more heavily emphasized and refocused to incorporate some of the substance abuse prevention concepts. Third, the programming should be culturally appropriate, i.e., the materials and activities should be relevant and appealing to Head Start parents. Activities, for example, should be related to preferred discipline styles. The objectives of our curriculum were to inform parents about the risk factors that were linked to substance abuse. We also wanted to develop effective family management skills so that they would be able to develop better interpersonal resistance -- better

problem-solving and emotional coping -- so that they would reduce the risk for themselves for substance abuse. When we started the curriculum the focus was on reducing substance abuse in the children. By teaching the parents what they could do to reduce substance abuse in their children, they themselves would develop certain skills that would somewhat inoculate them against substance abuse, which is how Head Start works. The fourth objective was to educate young children about the problems of drug abuse and to teach them to say no to drugs. We also wanted to develop skills in young children that would help reduce their susceptibility; for example, antisocial behaviors that have been associated with substance abuse. We wanted to teach them how to cope with frustration in a less antisocial way, how to manage their anger, and how to increase their academic self-confidence, as these were variables that were associated with substance abuse. Finally, we wanted to align our knowledge and skills, and the knowledge and skills of the parents, with the understanding that if they practice unsafe behaviors that encourages their children's unsafe behaviors. They needed to be cognizant of what they were doing if they wanted to have a positive influence on their children.

In terms of the specific model, what we decided was that we needed to change the knowledge, the skills and the values on several levels. We needed to give children the information so they could understand what it is that we were concerned with and what is important. We also felt that it was important to look at it in terms of their interaction in the society -- what society expects and how that influences their behavior. We have to take into consideration the extent of drug abuse and risk factors in their communities, the social pressure, what happens when they go to social functions, and what happens with taking a risk. We must also understand how their values and motivations work together. A brief description of the curriculum is as follows. The key themes and concepts that were extended across different modules of the curriculum included: self-esteem; bonding to their children; decision-making; coping skills; enhancing family strengths; choice (in terms of locus of control); enrichment; communication skills; parenting skills; having fun (being able to enjoy yourself without drugs, etc.); self-sufficiency; safety; and then, finally, that important word -- "empowerment."

The curriculum has ten modules for the parents, each in two-hour sessions. The modules for the parents and family are: an orientation about drugs and what the program is going to be about, family and self-esteem; communication; stress; developing support groups; the community; health issues related to drug abuse; values; and appreciating our families. Throughout each of these curricula is a link to substance abuse and how each of these categories relates to substance abuse. For the children there are several concepts: recognizing drugs (we have several activities related to that); the family; managing difficult feelings; handling anger; dealing with feelings; accepting responsibility; values and peer pressure; self-esteem; health practices; and the community.

We had an initial field testing of seven sites for the design of our experimental test of the program. We have done a replication of those seven sites, and are now extending it to an additional five sites for testing. The data that we will present today relate to the first field testing. We had six centers that were matched for socioeconomic status of the participants as well as ethnic characteristics. At three centers a sample of parents served as the intervention group, and at three centers they served as the control group. While we only included a subset of the parents in the intervention, all of the children in the particular center received the intervention in the classroom.

The effectiveness of the program was evaluated by the participants and by the trainers, using our questionnaires. We also wanted to assess the outcome using self-reported knowledge about risk factors associated with drug use, including skills acquisition, attitude changes, and behavioral intentions. We also assessed the actual reduction in occurrence of early predictors of drug abuse, for example, ineffective family management. Then we evaluated it with regard to other mediating variables, including alternative behaviors that would have been exhibited by the parents and the children. These are some of the assessments we have: the self-report of use of drugs; knowledge of information presented during the session, i.e., psychosocial constructs such as self-esteem, anxiety, attitudes toward drugs; values; behavioral intentions; skills related to the intervention; parenting skills and satisfaction; communication skills; social support network; and coping skills.

Coping Styles, Self-Esteem, and Substance Use Among At-Risk Families *Sadie Grimmett*

My presentation deals with some of the preliminary analyses related to stress and coping with stress. Throughout this conference there has been a lot of discussion about empowerment -- you attended the luncheon yesterday you heard that term used several times -- and one of the first things that I want to do is talk about how this curriculum relates to empowerment and why I think that it is very important. The goal of empowerment is to provide the family with intentional control over its own development. This goal is related to a long-term philosophy of Head Start, often referred to as self-sufficiency. One of the important things about empowerment is that it has a model of development that is different from the traditional view of development as deficit reduction or inoculation against negative outcomes at some future time.

Historically, most intervention projects have been built on a model of development as stable. A bad experience in 1990 is expected to last until 1991 or 1992, or even until 1999. That denies the notion of the family and the child as changing. The idea of empowerment takes the opposite: it recognizes change over time within the family and within the child. The goal is to train in having multiple ways to control your own life over multiple circumstances, rather than to train for specific instances. We did this in this program, particularly in talking about coping.

Coping refers to competent recruitment of resources, either psychological resources within the person or social resources -- those resources external to the self. The problems amenable to coping are unique to the person. Appraisal and selection of coping techniques rests upon individual decision-making. Coping implies success, not just trying to do something and being a failure at it. As

the person copes, that coping becomes a series of preventions throughout life, as opposed to a single intervention. That makes empowerment different from the traditional notions of intervention and prevention. It allows it to be a long-lasting prevention. It is very appropriate for us, in this project, to deal with coping skills, because the parents of Head Start live in environments that have two major stressors: drugs and economics.

Across the sites almost one-fourth or more of the parents reported feelings of stress. The Head Start parents were asked, "What do you do to manage your stress?" One of the responses they indicated was the use of prayer as a coping skill. The reasons I elected to report prayer as a coping skill is because we often think of prayer as an inactive way of coping. In fact, researchers who asked people about how they handle stress report that prayer is an active way of coping and that it can have one of two possible outcomes. One occurs when you change the meaning of the context. For example, instead of saying drugs are something that you can't do anything about, you see that through prayer you can change the meaning and say, "This gives me a challenge to get up and do something about this." As a matter of fact, a trainer at one of our sites reported that the parents took on a drug house across the street from where they met. The other thing that prayer can do is offer direct control of feelings of stress. It can act as a catharsis.

The two project modules that dealt with training in coping skills offered a variety of coping skills. Some were psychological, like locus of control and self-improvement. Others were social, like assertiveness and working with a support group.

According to preliminary data at the Indianapolis site, our intervention seems to lead to positive outcomes. Strategy One represents self-management or self-improvement skills. Strategy Two is anxiety management. Strategy Three is assertiveness. Strategy Four is social skills. There was improvement from the pre-test to the post-test scores. These are not statistical relationships. There was improvement in the use of those strategies, except for assertiveness training (using assertiveness as a coping strategy). In Indianapolis, at the end of each session they would say, "Go out and practice this for next time so we can come back and talk about where you have used these coping skills."

We did not have a direct measure of informal social support groups in our assessment. Now that I reflect on this, it's surprising, because informal networks, particularly among low-income Black families, have been described in the research literature for at least 25 years. It is a reciprocal kind of support. If a family has an emergency and needs to get one child to the hospital, there is a social support of friends or a group in the housing project where they can leave their other children while taking care of the sick child. In return, the parent who used that service will provide a similar service when it is needed by the family who supported and helped them. We did ask about talking to someone, and they did report using this as a strategy. I used that to represent the use of social support. However, we don't know if this is informal social support or formal social support -- talking to professionals.

Since coping is not direct instruction of the children and not related to parenting skills, one might ask how coping works in relation to drug prevention. There is a base of social learning theory in terms of how coping works. When parents indicate through their coping that they disapprove of the use of drugs, the child observes that, abstracts from that, and then begins organizing his or her life toward a negative attitude to drugs. The literature shows that parents who indicate disapproval -- negative attitudes toward drugs -- are more likely to have children who are non-users. It is important that we get parents of very young children to start feeling negative about drugs. There is some data in the literature that say that the attitudes -- positive attitudes towards drugs in children - make a dramatic shift between grades three and four. We have got to start helping them learn that the families don't approve. This is something they learn through social learning.

Equally important as knowing and absorbing the family's attitudes through social learning is the fact that the parents begin to be seen as competent human beings, as doers. What the children absorb from that is more confidence in themselves as doers. The parent demonstrates confidence that he or she can go out and get something done in the neighborhood. The children observe that. And they develop a self-confidence. Our emphasis is on coping skills and empowering the parents to control their own development and the development of their families, in the ways that we are helping kids in the future to not use drugs. That is what keeps this project a continuing primary prevention program.

Family Management Styles and Substance Use Among At-Risk Families *Aline Garrett*

In my presentation, I will give you some of the demographic information about the participants: 81% were African-American; 14% were white; and 5% were Hispanic, Native American, and Asian. Eighty percent of the primary caregivers were female, with most having some high school education or being high school graduates. Seventy-one percent of the women lived apart from the child's father. In looking at the employment of mothers, 64% were unemployed, 28% were employed full-time; and about 8% were employed part-time. For fathers, the majority were employed either full-time or were unemployed. Very few were part-time employees, or the mothers reported that they did not know.

Individual factors that might be related to drug use are frustration and isolation. These are individual characteristics that might relate to parents' as well as children's use of drugs. In our sample parents reported higher drug use for cigarettes, beer, wine coolers, liquor, and marijuana. Next, they reported using illegal drugs such as cocaine, uppers, downers, and so forth. Over the several sites, the same pattern emerged. For example, in looking at the Lansing data, we find percentages of drug use: for cigarettes, 53%; beer, 62%; wine coolers, 62%; liquor, 59%; marijuana, 40%. When looking at the other drugs -- cocaine, uppers, downers -- the numbers drop off to 6%, 15%, and 6%, respectively.

Drug abuse is more likely in families where family members feel lonely, isolated, and frustrated. There is poor communication between parents and children; parents demonstrate little sense of ethics; parents and children lack self-esteem; parents drink heavily; children feel rejected; parents have low expectations for their children. In terms of parental style, they follow rigid stereotyped sex roles. Family management is inadequate. In terms of discipline, you find excessive domination and control. However, the children are going to be in situations where they are going to have to make some decisions. Drug abuse is less likely in families where family members show warm, positive relationships, have a commitment to particular kinds of goals, especially education, believe in society's values, attend religious services, have high aspirations for their children, have strong kinship networks, and are proud of the children's accomplishments. All of these factors show which parents and children are more or less likely to be involved in substance abuse.

In trying to develop a program to deal with these basic risk factors, we developed modules, or curriculum. I want to highlight some of the modules that dealt directly with these issues. Module Number Two was "we are family." In this particular module, parents were involved in a variety of activities that informed them about some of the risk factors for their children. They were then asked to look at that and make some determinations about the children's behavior. Next they were asked to assess if, indeed, that behavior affected their risk factors. There were activities that were done to strengthen the family unit; there were activities dealing with discipline. Module Four dealt specifically with communication -- the idea of winning with words, listening, turning don'ts into do's and other parent/child types of communication.

Module Seven was "all around the community." Here, we were trying to make parents aware of information about drug use and how it affects not only the user, but also family, friends, and coworkers -- the entire community. They were also able to learn about some of the community resources -- "what to do, where to go" -- kinds of things. Also, they learned how the use of drugs changes the expectations, behaviors, and lifestyle of the community. Module Ten dealt with appreciating our families, and that was the culminating activity. Our parents were able to show appreciation for their family members.

What we found from our preliminary data was that the parents who went through the curriculum were significantly more competent in their parenting. That is, they felt better about carrying out those kinds of responsibilities. We also found that the trend was for the parents who had gone through the curriculum to show more satisfaction with their parenting, so that as they went through and dealt with the issues of communication, of relationships, etc., they were feeling better about themselves, and about the community.

Environmental (Social Support and Community Problems) Correlates of Substance Use and Attitudes Towards Drugs *Ura Jean Oyemade*

The need for an early childhood Head Start curriculum in substance abuse prevention was directed by the increase in the incidence of substance abuse in low-income families and communities. Moreover, a group of minority scholars involved in Head Start research determined that in the Head Start target population there was an increase in the incidence of substance abuse among Head Start parents that puts Head Start children at greater risk for substance abuse. And, since treatment programs have been less successful, research suggested that prevention targeting high-risk groups is a key to reducing the overall demand for drugs. Thus, when the solicitation for national prevention programs was issued by the Office for Substance Abuse Prevention (OSAP/ADAMHA), the Minority Scholars headed by Ura Jean Oyemade teamed with the National Head Start Association to develop a proposal that was subsequently funded.

In considering a drug-abuse prevention program for early childhood, especially high-risk minority children, we were guided by six basic principles. The primary focus of such prevention efforts should be the parents, since early childhood is a period where parental influence dominates; prevention targeting children should be developmentally appropriate, that is, the material should be appropriate for children at the specific age; the program should focus on reducing the occurrence of risk factors in the child and the family that have been associated with the onset of later drug use; the program should be culturally appropriate; it should not be moralistic or deficit oriented; and the children's curriculum should be integrated into the regular classroom activities and should be ongoing.

Specific objectives are to inform parents regarding the risk factors that tend to be associated with later substance abuse in children; develop effective family management skills to create an environment that reduces risk for substance abuse; establish a values/alternative condition in which knowledge and skills are aligned with an understanding of how attitudes encourage drugs and abuse; educate young children about the problems of drug use and teach them to say no to drugs; develop skills to reduce young children's susceptibility to drugs; use a cognitive interpersonal skills approach to reduce aggressive and other antisocial behaviors while increasing academic achievement and self-confidence in young children; and align knowledge and skills with the understanding that parental attitudes and practice of unsafe behaviors encourage children's unsafe behaviors.

The research identified factors that place certain families at a higher risk of substance abuse, e.g., inadequate family management, excessive drinking, as well as characteristics that would make drug abuse unlikely to occur in families, e.g., strong kinship networks, commitment to education. The model employed to develop the curriculum relied on four themes: definitional, social, intrapersonal, and interpersonal, as well as the need for support networks. The culturally based curriculum uses a discussion-experiential approach, as opposed to a didactic approach.

The target populations are low-income minority children (Black and Hispanic) who are enrolled in Head Start, and their parents. The parent curriculum is a 10-session, experientially based skill-development program approach. The children's curriculum is integrated into the regular classroom curriculum and includes games, coloring with crayons, singing, etc. Additionally, at-home activities are included for parent follow-up of classroom activities with the child. Trainer's guides were developed for both the parents' and the children's curriculum. A pre-test/post-test experimental and control group design was employed. Thirty experimental and thirty control parent-child pairs at each of eight sites were included in the evaluation design. Instruments assess knowledge, values, attitudes, self-esteem, stress, and other factors.

Results indicate significant knowledge improvement among the experimental group of risk factors related to substance abuse.

Roundtable 208 COLLABORATIONS IN ACTION: RESHAPING SERVICES TO YOUNG CHILDREN

Chair: **Sharon Lynn Kagan**; *Discussants:* **Barbara Kamara, Teresa Buccarelli**

Collaborations in Action: Reshaping Services to Young Children and Their Families

Sharon Lynn Kagan, Ann Marie Rivera, Faith Lamb Parker

We would like to share some of the major findings of the Bush Center Early Care and Education Collaboration Project. Most of the data we will be reporting today were derived from an intensive telephone survey of 72 effective early care and education collaborations culled from a pool of more than 300 nationwide. Where appropriate, however, we will also share preliminary findings from recent case studies of eight collaborations, a subset of the 72 previously interviewed and the continuation of the early care and education research.

Before reporting findings, however, it is important to ground a discussion of collaboration in an understanding of their definition, their development, and their differences.

Before studying this new and challenging phenomenon, it was important to define the construct of collaboration. After debate and a review of the literature, the Bush Center project defined collaborations as "those efforts that unite organizations and people to achieve common goals that could not be accomplished by any single organization alone." Crucial to defining collaboration, however, is distinguishing it from the kindred terms "cooperation" and "coordination". The best and easiest way to distinguish among the terms is to picture them as forming a pyramid. Cooperation is at the base of the pyramid; it is the least complex relationship and evidences informal interactions among parties without any clearly defined structure. Participants retain their autonomy, resources are not pooled, power is not shared, and interactions are episodic. Coordination, the middle level of the pyramid, is more complex, and involves the sharing or exchange of some resources. Coordination is typically bilateral; usually two groups will coordinate activities around a specific task or program. In contrast, collaboration is the apex of the pyramid. This is a durable and pervasive relationship that brings previously separated organizations into a new structure, transcending individual or episodic interactions. Collaborations require greater sharing of resources, joint and comprehensive planning, the distribution of power and authority, and often shared language.

Though this generic definition may be applied to all collaborations, each collaboration is marked by diversity and its differentness from other collaborative initiatives. Most dramatic is the difference in collaborative missions, in the focus of the collaboration's energies. Our research has identified three types of mission: service, in which direct services are provided to children and families; system, in which reform of the service delivery system is attempted; and dual, which includes both service and system efforts. Not surprisingly, collaborations with different missions evidence different goals, activities, and, to some extent, different outcomes. Thus, research and evaluation of collaborations must carefully distinguish between their missions.

Our thinking on developmental stage theory has been guided by the work of scholars, but has also undergone refinement based on the results of research. Scholars recognize six developmental stages -- from initial formation to termination or reformation -- through which collaborations progress, as children do through successive cognitive stages. Our work has suggested that development through these stages, however, is not linear or neat. In fact, collaborations' development may be graphed as a zigzag, with stops and starts and regressions to previous stages. Moreover, multiple stages may coexist in one collaboration, if the collaboration has multiple projects or programs at different stages. Finally, we found that intensive and sometimes lengthy activity occurs before the collaboration or any thought of it exists, and continues to impact on the collaboration as it is launched. We have called this crucial early time the preformation stage.

Our most recent research has further refined the concept of developmental stages to include what we have called "static" stages. Occurring between each of the six "dynamic" or action stages defined by scholars, the static stages appear to be lulls during which the collaboration regroups, evaluates, and charts a new course. The collaboration's attention is focused inward, on its process and goals, rather than outward on its activities and projects during these static stages. This reformulation of stage theory posits twelve developmental stages, a static stage occurring between each of the six dynamic developmental stages defined by scholars.

Having presented this background to understanding collaborations, we would now like to share some of the key findings. They arise primarily from the telephone survey, though in some cases they are refined by preliminary analysis of case studies. To highlight each finding, we have found it useful to identify them with metaphors or symbols that embody each issue.

FINDING #1: CONTEXT, OR, "AS THE TWIG IS BENT, SO GROWS THE TREE:" The ubiquity of context simply cannot be overstated. Research indicates that aspects of the external context -- geography, ideology, politics, demographics, and economy -- that precede the collaboration have an enormous impact on its subsequent development, operations, and outcomes. For instance, in a political context marked by concern for children's services and acceptance of collaborative problem-solving strategies, collaborations are mandated with bipartisan support, enjoying both prestige and funding. By contrast, in a political environment unaware of early childhood needs, collaborations experience more difficulty in getting started and spend more time in consciousness-building before they can accomplish project-oriented goals. Similarly, a rural geographic context may inhibit collaboration: providers are isolated, services are scarce, harsh terrain prohibits meetings and communication. Ironically, these same geographical context factors may enhance collaboration in an effort to redress access issues. Recent research has also identified internal as well as external context as important to collaborative development and outcomes. Internal context is made up of the collaboration's goals, mission, resources, impetus (legislatively mandated or voluntarily formed), membership, members' relationships and organizational cultures, among other elements. As the collaboration comes into being and throughout its life span, internal context interacts with external context to create a unique ethos in which the collaboration operates and pursues its goals.

FINDING #2: FLEXIBILITY, OR, "TRY, TRY AGAIN:" Collaboration isn't easy. Therefore, it is not surprising that most of the collaborations we have studied, as effective as they appear to be, have reported fiascos, crises, and major setbacks in their work. Specifically, most collaborations indicated a need to respond flexibly and creatively to issues related to goal definition and funding. No matter how carefully and thoughtfully goals are defined at launching, external or internal changes -- such as the loss of funding or a turnover in political incumbents -- often must be modified as the collaboration progresses. Thus, our field research affirms the literature's notion that flexibility is crucial to effective collaboration.

FINDING #3: GOALS, OR, "THE MEANS AND THE ENDS:" Recalling that collaborations take on distinctly different missions -- service or system -- it is not surprising that they also form themselves into distinctly different structures to pursue those missions. Specifically, our research found that most system-oriented collaborations tend to form on what we have called a "ring" structure, where all players meet and bond together to achieve their goals. Service collaborations, by contrast, usually operate with a strong central hub, i.e., an agency initiating collaborative relationships. The hub reaches out to other agencies and entities like the spokes on a wheel, forming numerous dyadic relationships around specific projects or concerns. Because these differing structures seem to enhance the differing work taken on by the collaborations, we became concerned about mission/structure mismatch. Such a mismatch seemed to occur primarily when the collaboration is mandated. Because the ring structure is our most commonly accepted form for collaborations, mandate usually requires that collaborations be rings, regardless of their mission. While perfectly acceptable for mandated system collaborations, mandated service collaborations may not operate as efficiently as when they are allowed to tailor their structure to their mission, thereby evolving the hub/spoke model described earlier. We call this mismatch the "square peg-round hole" dilemma, because it forces the service mission (square peg) into the ring structure (round hole).

Our case study research has affirmed the differing structures of collaborations and supports the theory that collaborations operate best when allowed to form a structure that matches their mission. However, we also discovered that multiple structures exist in one collaboration -- that both service and system collaborations have interacting rings, spokes, and hubs. The difference appears to emerge in the emphasis accorded each structure: for system collaborations, the collaboration's leader and decision-making occur in the ring structure, areas for service collaborations, leadership and decision-making rests within hubs. Dominating this finding regarding structure is the realization that collaboration is a complex activity and demands correspondingly complex operational structures.

FINDING #4: LEADERSHIP, OR, "THE ROUNDTABLE:" The question of who should be in charge is a very serious problem in collaborations. The literature posits that shared or collaborative leadership is optimal, i.e., a round table where no person sits at the head and each is equally important. In practice, this pure form of leadership sharing appears to be uncommon. The vision for the collaboration often arises from one individual, usually the initiator or the early leader of the collaboration. The telephone survey suggested, and the case study research affirms, that the two leadership concepts, shared vs. charismatic, do not need to be in opposition. Rather, leadership sharing appears to happen on a continuum, with dual leadership (between two influential persons) at one end, and distributed leadership (the participation of all members in goal definition and decision-making, while recognizing the prominence of an individual leader) at the other with supported leadership (synergy between the leader and variety of supporters and patrons) falling somewhere in the middle. Preliminary findings from the case study research indicate that these versions of shared leadership appear to work more effectively than single-person, authoritarian leadership.

FINDING #5: RESOURCES, OR, "DOLLARS AND SENSE:" Resource findings arise in two areas -- having it and sharing it. Service collaborations appear more likely to be blessed with resources, perhaps because their outcomes are usually short-term and tangible. System collaborations, on the other hand, report difficulty accessing resources. This finding is of particular concern because system collaborations target the early care and education infrastructure for reform -- an endeavor demanding time, energy, and long-term commitment. When members' attention is distracted by fundraising and the collaboration's longevity is in doubt, long-range planning is inhibited and the collaboration's potential is circumscribed. Some data indicate that system collaborations may change their missions to dual-focus, system and service, in order to attract funds -- a move that skews the collaboration's original intent and fosters discontent and disagreement among members.

Regarding sharing resources, we found that shared dollars operate like glue to cement collaborative relationships and enhance service coordination. A corollary to this is that inventive fund use, mingling funds or distributing funds with sensitivity to differing program or community needs, also seems to promote collaboration and improvement of services in the areas of access and equity. Funding guidelines and stipulations, particularly those that accompany mandated collaborations, make such fund use extremely difficult, however.

A final comment regarding barriers to collaboration. Almost without exception, we found that practitioners are not benefiting from the research accumulated on collaborative activity, that theory is not permeating practice. Left alone to reinvent the wheel, practitioners complain of being isolated and battle weary. By the same token, because the field of collaboration is outstripping theory, practitioners have much to contribute to our scholarship. The findings we report today are a mere glimmer of the light that practice can shed on theory, of the refinement of our understanding that is possible when practice illuminates theoretical work. This is our hope for today's discussion.

Presentations of Collaborations:

The Metropolitan Council on Child Care *Stacie Goffin*

The Metropolitan Council on Child Care was created in January 1989 as an outgrowth of a Kansas City community-based task force.This task force was formed to study and make recommendations for improving child care in the metropolitan community. I am the chairperson of the council and have held this volunteer leadership position since the council's inception.

My remarks are organized into two parts: 1) a description of the council and its accomplishments; and 2) some personal reflections about the challenges of creating and sustaining a collaborative effort that has a systemic focus. My emphasis is on the challenges we are experiencing in developing the council rather than the challenges we are confronting in constructing a system for early childhood care and education.

The council is sponsored by the Mid-America Regional Council (MARC), a voluntary association of local governments serving the bi-state Kansas City metropolitan community. Our bi-state existence means that we deal with two state legislatures and two sets of child care standards and regulations. We also coexist with a community attitude that has long supported fragmentation and duplication of services. The mission of the council is to serve as a catalyst for the construction of a system for the delivery of high-quality early childhood care and education. Our comprehensive focus on systemic issues versus direct services distinguishes the efforts of the council from most collaborative efforts. It also provokes distinctive challenges.

The council has had enormous success in its brief two and a half years. In addition to securing funding commitments for its first five years, the council has established itself as an important community voice on the issue of early childhood care and education. In fact, some of the challenges we currently confront result from our achieving acceptance so quickly. On the positive side, a direct reflection of this acceptance has been the council's ability to assemble almost 200 people to discuss and attempt to resolve systemic issues over an extended period of time. A very fragmented community is now coalescing around issues of shared concern. The council is succeeding in creating a visible, centralized organization for addressing issues that affect the delivery of early childhood education.

Other accomplishments include the creation and distribution of a quarterly training calendar of short-term, low-cost training opportunities for area child care teachers and family day care providers. The forthcoming calendar will key entries with the 13 CDA competencies, initiating what we hope will be the beginnings of a coordinated system of professional development, regardless at which level an individual enters the system. The council has also prepared a report on local zoning regulations related to child care and shared the information with over 100 cities and counties in the metropolitan area; developed and distributed a brochure and public service announcement on resource and referral services available to parents, which represented the first coordinated effort by our area resource and referral agencies; prepared a report on before school and after school child care programs offered in all school district properties in the eight-county region, which was, in turn, distributed to superintendents and others in the community's 53 school districts; and brought together school-based, for-profit, and not-for-profit transportation specialists to address the issue of transportation in relation to school-age child care.

On July 1, we will be announcing the formation of a Professional Development Fund, a consortium of scholarship and grant monies targeted toward the enhancement of professional and program development. This new council accomplishment will provide the community with a centralized source for accessing scholarships and grants targeted toward early childhood education. In addition,

the interest generated from the combination of these funds (plus new ones) will be applied toward the development of an endowment that can be targeted toward the missing and/or evolving professional development needs of the community.

Basically, the council is immersed in trying to accomplish two overwhelming tasks: 1) constructing a viable organization for solving the systemic issues in early childhood care and education; and 2) functioning as a catalyst for the construction of a system for high-quality early childhood care and education. As a result, the council consumes enormous amounts of time and incredible commitment from its participants, the MARC staff, and the council coordinator. One wonders how long this intensity of commitment and involvement can be sustained. This apprehension is exacerbated by the comprehensiveness of the council's focus, its rapid acceptance, and immediate successes. The council has taken on the world of early childhood care and education and, in so many ways, is leading the way for others. Because of the interdependency of the various parts of any system, we believe a comprehensive approach is needed to make a significant impact. But there is simply too much work for a single staff person, even with additional support from the parent agency. Coordinating and staffing the efforts of the Council and its committees devours the coordinator's time, placing daily organizational demands in competition with needed long-range activities and projects. In addition, because the council is a people-oriented enterprise, our interactions are frequently emotional and intense. The community has incredible expectations for what the council can achieve, and these are daunting. Furthermore, these expectations are not for the future, but for the present. Also, how these expectations will be achieved seems to be undergoing a curious transformation. Participants seem to be externalizing the council. They seem to be transforming the council from a collaborative effort into another free-standing community institution. I think we are confronting the challenge of sustaining our grassroots commitment while adding more formalized behaviors required by our growth. We are still in the process of developing relationships and collaborating on viable solutions to shared concerns. But no one has yet been challenged to alter their program's mode of operation so that a coordinated system can actually be constructed, although we are beginning to see these challenges materialize.

As the list of our accomplishments has grown and the demands made of the council have increased, we have realized the need to step back to assure ourselves that what "we are busy about" does, in fact, help construct a system. In response to this self-questioning, we have begun a strategic-planning process that we hope will help solidify our shared vision, explain our complexity, inform our choices, and suggest a better organizational structure. In particular, the validity and efficiency of our current structure, especially the relationship among the various committees with the council, is being reassessed. Yet even as we contemplate a future format for the council, the existing structure is evolving. The council's structure has always been dynamic. To those of us who see this as a characteristic critical to the council's ability to be responsive to emerging insights about its functioning, this fluidity is challenging. To those with a low tolerance for ambiguity, it is incredibly frustrating.

Undergirding these challenges is one that I think will continue to plague us: funding. From what source can a consistent funding stream be found? Although we are appreciative of the financial support we currently enjoy and feel optimistic about receiving additional funding targeted toward specific projects, a consistent funding stream will be needed to sustain the daily operations of the council. Time spent seeking funds, of course, is time taken from advancing the council's mission. Unfortunately, our aspirations for federal funding are evaporating as our involvement in developing state plans reveals the insufficiency of available funds that are being targeted towards people and programs that provide direct services.

The formation of the council has required optimism, perseverance, and imagination. It has required risk-taking and a willingness to be imperfect. It has required hard work. Envisioning the council and its development has been a tremendous learning experience. Among my learnings are a confirmation of the potential in the field and of individuals, in particular. The energy flowing from the council is awesome. The experience is also confirming in that we know what it takes to pull off such an effort -- the challenge is in implementing our knowledge.

Supporting Family Day Care Through Community Partnerships *Pat Ward*

The National Family Day Care Project (NFDCP) is a four-year initiative of the National Council of Jewish Women (NCJW) Center for the Child. The National Council of Jewish Women, a membership organization of 100,000 volunteers nationwide, has a century-long history of community service and advocacy to improve the well-being of children and families of all ethnic, economic, and religious backgrounds. NCJW volunteers traditionally have been strong and effective supporters of children and families at the local, state, and national levels. The NCJW Center for e Child is a research institute to promote the well-being of children and families in the United States.

The NFDCP is pioneering new roles for volunteer organizations to improve the quality and expand the supply of regulated family day care. Family day care is the care of a small group of children in the provider's home. Family day care has unique qualities that make it the preferred arrangement of many parents. High-quality family day care offers children and their parents individualized care and learning in a comfortable, dependable, and flexible home environment.

The highest priority in every effort to develop the supply of high-quality family day care has been to bring family day care into the child care mainstream. This requires governmental regulation of family day care homes; increased provider screening, training, and resource support; and recruitment and retention campaigns. In designing and implementing projects to help address some of these goals, the NFDCP has enjoyed the benefits of working with advisors and partners.

Over the past two years of the NFDCP, NCJW volunteers in 30 communities nationwide have conducted local needs assessments and developed resources to support family day care. Advisors to local NFDCP sites have provided guidance in planning and implementing projects, either through formal advisory groups or individual consultations. Community partners for local sites shared resources and/or responsibility for the projects, usually as part of coalitions or cooperative public/private/volunteer efforts. Currently, the NFDCP is disseminating its publications and providing technical assistance to NCJW volunteers and other volunteer and community-based organizations on how to develop family day care projects. The NFDCP's dissemination and technical assistance is based upon the knowledge and experiences of the local community volunteer projects that emphasized collaborating with advisors and partners.

The NFDCP's successful projects and partnerships involved several key elements. One of the most efficient and accurate ways to identify the family day care needs in a community, and therefore to identify an appropriate project, is to conduct needs assessments. By speaking with people who viewed family day care from different perspectives, volunteers were able to identify community needs, as well as existing resources and involved organizations.

In addition to identifying the needs in the community, interviews can bring other outcomes, such as: identifying organizations that can be advisors and partners for the project; building broad-based community support for the project, since the people who are interviewed may tend to support the project because they were involved in its development; and advertising the organization sponsoring the project and its work in family day care, because if the people who are interviewed want to work in the field now or in the future they are likely to contact the organization that initially interviewed them.

The success of the local family day care projects depended on the volunteers working effectively with other organizations in their communities. Generally, the volunteers worked with other organizations in one of two ways: advisory relationships or partnerships. Organizations in advisory relationships with volunteers supplied guidance to the family day care projects, usually as part of advisory committees, steering committees, or informal groups of advisors. All NFDCP projects benefited from advisory relationships. The organizations in partnerships with volunteers shared resources and/or responsibility for the family day care projects, usually as part of cooperative efforts, public/private/volunteer partnerships, or coalitions. While all projects benefited from having advisors, all projects did not need partners. In particular, small projects sometimes needed only one sponsoring organization.

In practical terms, the difference between advisors and partners was not always obvious. An involved advisory committee member may have played a major role in planning a project, or a partner organization may have provided funding for a project but was minimally involved in planning. The difference generally lay in an organization's overall commitment to a project. The advisory committee member may have been involved in planning, but his/her organization did not commit significant resources or take responsibility for the project. A partner organization, regardless of its involvement in the planning process, provided major resources. Many projects had both partners and advisors, as for example, when several organizations formed a partnership to sponsor a project and received guidance from an advisory committee.

In addition to working with advisors and partners on the local level, the NFDCP has also utilized national advisors and partners, including public and private sector experts on family day care, such as national associations, corporations, child care agencies, and researchers.

Project funders can also be partners and/or advisors. The experience of the NFDCP has been that funders can provide not only financial resources to a project, but also can strengthen a project in many other ways. Although different funders were involved in the project to varying degrees, some trends emerged, including: formal relationships between the NFDCP and its funders, such as serving on the project's advisory board, requiring annual reports, or visiting a project site; informal relationships involving, for example, frequent telephone conversations and sharing of information, materials, and contacts; time- limited commitments, which usually involve funding for multiple years a project that is scheduled to terminate at a definite time, which avoided any long-standing commitments for the funding organization; specialization, in which a significant portion of a funder's grants were given to a particular type of project or project component, such as technical assistance or support for NFDCP efforts in particular regions of the country; and multiple funding sources, which are helpful because a project with support from more than one funder often is viewed as an attractive grantee, since the fiscal responsibility is shared and there is a shared endorsement of the project's goals.

The final key element of successful projects and partnerships is keeping good projects going. Good local projects -- those that meet community needs with a targeted use of resources -- often end because no one has planned for the future. Provisions can be made for a vital community service to continue after the initial source of funding disappears or the founding groups can no longer support the project. The process of continuing a project can be called institutionalization. Project institutionalization may take several forms. The project can remain with the founding organization, with ongoing funding secured. Another organization working in the same field can adopt the project. A group of organizations with vested interests in seeing the project continue can agree to support the project into the future. A new organization can be formed to administer the project, which may be especially appropriate in the case of particularly large projects.

Planning early for institutionalization will help insure that a project does not end abruptly. Several approaches that the NFDCP identified as effective means for planning for institutionalization are: building an evaluation into the project, because evaluating the process and outcomes of the project -- if and how it is meeting community needs, and if those needs are ongoing -- helps determine whether the project should continue; developing advisory relationships and partnerships to generate suggestions and

resources for institutionalizing the project; and seeking ongoing sources of funding in the community, since developing relationships with current and potential funders can give a project greater access to financial support as it enters the phase of institutionalization.

By working with advisors and partners to assess needs, cooperate with others, and keep good projects going, the NFDCP has helped to maximize community resources, gain broad-based support for its efforts, and assist family day care providers and the families who use their services. Locally and nationally, working with advisors and partners has proved to be a rewarding, productive strategy.

A Working Collaboration: Head Start and Public Preschool *Judith Wahrman, A. Fredericka Larsen*

WSOS Community Action Commission, Inc., (WSOS) is an incorporated private, nonprofit corporation. The mission of WSOS is to help the poor become self-sufficient, and to foster overall local development activities in partnership with other entities. The WSOS service area includes six counties in northwest Ohio. WSOS has operated the Head Start program in four of those counties for 25 years.

In the fall of 1989 the Ohio Legislature enacted an educational reform measure that afforded WSOS the opportunity to work with the educational community by providing services to at-risk youth. This paper will review the collaborative process through which WSOS established Head Start/Public Preschool Programs and Prevention/Intervention Projects in 20 school districts. The paper will conclude with a research project design that developed through the collaborative efforts of this undertaking.

Rural Coalition for Education Partnerships (RCEP) was created by WSOS and area educators in response to educational reform legislation (Ohio Senate Bill 140: Accountability and Reform Act). In 1989 the State Legislature enacted laws that changed the way education was to be delivered in Ohio, from preschool to graduate school. The legislation was enacted to improve education and boost taxpayers' confidence in Ohio schools. Primary elements of the bill include: the annual collection and publication of data to measure performance of every school district and school; preparation of a vocational modernization plan; required mandatory kindergarten; formation of business advisory councils in each school district; the guaranteeing of competency of high school graduates; intervention/prevention of dropouts; and state financing of public preschools.

Two of the key programs in the legislation were the investing in early childhood education and children defined as at-risk. These two specific classifications of youth were to be addressed by having school districts compete for $90 million in project grants that would meet the needs of these youth. RCEP was created to assure that rural northwestern Ohio school districts in Wood, Sandusky, Ottawa, and Seneca counties obtained their fair share of this new funding.

In November of 1989, WSOS and all of the 32 public school districts in its four-county service area (Wood, Sandusky, Ottawa, and Seneca) formed the Rural Coalition for Educational Partnerships. The mission of RCEP was to foster overall development of educational opportunities for local rural youth. The mission was to be accomplished by first looking at the accessibility of this population to prevention, intervention, and recovery programs, and then to have RCEP act as a coalition. The coalition would support rural school districts, community agencies, and business organizations that would work together to obtain maximum resources for their community. RCEP has held many meetings with more than 100 educators to inform them about, and elicit suggestions from them concerning, their at-risk student population. The coalition formed an advisory subcommittee made up of superintendents of each of the four county boards of education and either a city or exempt school district in each of the counties. The advisory subcommittee acts as the administrative entity of RCEP. In the spring of 1990, RCEP submitted and obtained a grant from the Ohio Department of Education (ODE) for Dropout Prevention/Intervention programs. In addition, over $1 million in grants were obtained for local school districts to start preschool programs.

It was anticipated that this collaboration would be able to increase the community's awareness of at-risk students, whether preschoolers or potential high school dropouts. This is being accomplished by increasing the membership of RECP, i.e., community agencies, systems, and businesses. In addition, a highly visible public relations campaign is being initiated. The coalition has already had a dozen articles in local papers explaining the coalition, and one local television program. To further reinforce our presence in the community, RCEP surveyed public schools and juvenile justice and human service systems in a six-county area. The survey was used to determine the perception of the at-risk youth population.

WSOS now has an integrated program (public preschool and Head Start children), located at 16 sites, in four counties, and serving 945 preschool children (507 Head Start children and 338 public preschool children). In addition, at one site the program is working jointly with a handicapped preschool class. The handicapped class is funded through and administrated by the county school district.

After receiving the preschool grants, WSOS staff met with individual school district superintendents to determine program components and decide which parts of the grant the districts wanted to carry out by themselves, which to operate in coordination with WSOS, and which activities would be contracted to WSOS, i.e., curriculum selection, staff training, case management, and transportation. To date, 9 of the 18 public preschool sites have obtained day care certification/licensor. Due to the lack of coordination between state agencies, seven sites are not yet licensed and are in various states of compliance with state child care regulations. Three programs are physically located in public school buildings, but are operated by WSOS.

FamilyNet is a research project that will enable us to modify current approaches used in Head Start and public school preschool programs through the second grade. FamilyNet proposes a program that combines comprehensive preschool through

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second grade education with intensive support programs for parents. FamilyNet will demonstrate that a) children can achieve more academically and developmentally with such a program and b) parents of these children can obtain a higher level of economic and social "self-sufficiency."

The FamilyNet intervention will center around Youth Family Advocates (YFA), who will act as team case managers. The main functions of the YFA will be to involve the family unit in the child's education and then make members of the family aware of their own self-sufficiency options. It is anticipated that the children assigned a YFA will be more successful than those not assigned a YFA in terms of academic and social/behavioral achievement, as measured by various outcome instruments. Further, family members with assigned YFAs will become more self-sufficient in terms of basic literacy, employment, and use of vocational and skill training. Both children and their families will have more contacts with the network of available community services than those in a control group without support.

Participation in the program will serve as an instrument for change. It is expected that those individuals involved in the original FamilyNet program would be hired as YFAs when the model is replicated. With formidable results in predicted areas, it can be anticipated that several types of organizations would be interested in replicating the FamilyNet program, including Head Start expansion, private foundations, and local school districts.

The unique characteristics of both these grants has been that they were specifically written so that individual school districts would able to select portions of the grants that they perceived would meet the unfilled needs of students in their districts. The RCEP partnership allows area school systems to band together to develop and seek funding for projects of mutual interest. WSOS brings expertise in grant writing and grants administration to the partnership, as well as expertise in the area of child development, notably through the Head Start program. The process leading to the award of state funds for RCEP required collaborative planning, programming, and operations involving all elements of the RCEP partnership.

Discussion *Teresa Buccarelli, Barbara Kamara*

TERESA BUCCARELLI: It seems that collaborations do have a lot of participants. We have volunteers, family day care providers and organizations, Head Start, public schools, local governments, businesses, funders, child care centers, community agencies, and a radio station. What comes to mind for collaboration, for me, is that it is a participatory process. Everyone needs to be a participant in order for a collaboration to work.

Kagan has mentioned several collaborative efforts in the state of New Jersey. The one that I have most recently been involved with included state government, researchers, and a community child care agency, with a lot of complications and everyone trying to figure out their roles. What does it look like? Is it a ring? Is it a sphere? We are still exploring these issues and continuing with our work. There are hurdles. I don't want to call them crises, but there are a lot of names for them.

One of our New Jersey collaborations that was part of Kagan's study is our Child Care Advisory Council. The council, seven years old now, is a mandated agency, with 37 representatives from the child care community representing family child care centers, school-age child care, volunteers and government agencies. They developed a 10-year plan for children's services in the state, one of the most significant outcomes of which is the Office of Child Care Development. The council has brought together what has always, in the child care field, both statewide and nationally, been a fragmented group. One of the things I have been amazed by in 20 years of child care is how long it takes us to bring all of those divergent interests together and stay on one path and not say, "I'm family child care," "I'm Head Start," "I'm community," "I'm for-profit." It takes a long time to pull away from these groupings, to get together and stay together and realize that what comes out of it is services for children, not our own interests or jobs.

New Jersey is quite different in the way it develops its regulations. We do have a sunset rule for all of our regulations, that if they are not reviewed in five years, they simply cease to existence. In order to avoid that and not be planning at the last moment for how things will continue, midway through the five-year process we start planning for the next step. In New Jersey, it is a participatory process, a two-and-a-half year process of a 40 member committee -- a committee that was very successful in helping us revise the regulations. It included members of all sectors from the child care community -- the for-profits, the not-for-profits, Head Start, small centers, large centers, corporate-sponsored centers -- working in a volunteer capacity. We are able to revise the regulations, and, because everyone participates, they all bought in. We had few comments like "this isn't going to work."

We have a way to actually hear what the public thinks through our register and through hearings that we hold. Family child care is newly regulated in the state of New Jersey as a voluntary system. It was put together in the same way. It is called the Family Child Care Organization. Twenty-five leaders in the field who have been doing family day care services were brought together. They worked for about 10 years before we actually got the legislation enacted. It took about two years to put together a voluntary system that is farmed out, if you will, to agencies within each of the 21 counties in New Jersey. It is overseen, not run, by state government. It is run by the same agencies that have been developing, recruiting, training, and supporting providers throughout the history of family child care in New Jersey.

Kagan posited a question at the outset: "Is it worth it? Is collaboration worth it?" I think so. We see linkages for children that are of immediate importance to those of us here. Collaborations, for most of us, mean accomplishments, increased services to children, and betterment of systems that will provide services to children, and certainly a way to plan for our children's futures.

BARBARA KAMERA: I want to focus on five implications for Head Start in the 1990's. As I think about my more than 20 years of involvement with Head Start and you think about collaborations in action we realize that Head Start has been a collaboration since its inception. There are five issues, based on what I have heard, on which we ought to focus.

First, Head Start programs must diversify to help meet the child care needs of the broader child care community. We heard some of that in the Ohio model, and although Head Start wasn't mentioned specifically in some of the other collaborations, I know they certainly must have been participants. When I talk about diversification, our greatest need in this country is infant care. We certainly have to see Head Start collaborating with more groups to directly expand or work with other funding to have infant-toddler programs. This is critical as school systems move more and more to universal 4-year-old programs, not to mention mandatory 5-year-old programs, and then to younger children. There must be more school linkages, because some Head Start children need an extended day. Head Start is going to have to get in the before- and after-school business or the extended after-school business or maybe even some diversification of that in terms of non-traditional hours, such as operating from 4-8 P.M. as parents are involved in training programs. As Head Start tries to become a part of the broader community, they are going to have to look at that. We are already beginning to see funding available for Head Start in public housing. Back in 1980, we tried to look at how to bring Head Start child care and public housing together. That will be even more critical as we move into the 1990's, and as we tried to see some different kind of things happen in public housing. Head Start has gotten into that to some extent, but I think there is going to have to be a lot more done, particularly if Head Start is going to expand into the whole infant care area.

Housing developers, in particular, will put in Section Eight housing and will want to protect the investment they are making in the housing. I would tell them that the way to protect the investment is to put in programs for children and families. Head Start can play a significant role, and we are beginning to see some of that happen in the District of Columbia, as Head Start has collaborated with our Department of Recreation and Parks, which operates a large program. A key role in this whole discussion of seamless child care is that Head Start has got to be very much a collaborator and participant in non-traditional child care.

Second, Head Start must be a significant participant with state and local government as it fulfills its six roles in terms of child care. I am not going to talk a lot about the six roles. I will highlight them if you are not familiar with them. The roles include: 1) regulator, 2) funder, (in terms of subsidies), 3) alcohol and drug programs, 4) maternal and child health programs (as local and state governments are becoming model employers), 5) trying to do things for their employees; and 6) advocate. As state and local governments plan and coordinate, it is important for Head Start to be a part of the process, which very often they are not, because there is no state presence for Head Start.

The third area I think Head Start has to focus on is to give some leadership and become a real collaborator in terms of training and technical assistance for the broader community. Head Start is probably the most stable funding source. You may not think it is stable when you talk about training and technical assistance, but it is far more stable than what we have anywhere else. Head Start has to be a major collaborator driving that. We all know how critical training and technical assistance is. They are going to have to work more with groups, such as the National Association of Social Workers, that can provide training and are willing to do so. The American Academy of Pediatrics has been a collaborator with Head Start, more in direct service, but now also in training and technical assistance, not just for Head Start but for the broader child care community as well. Alternative credentialing is another area where Head Start can take the lead. Our school system is now even looking at CDA as a possibility for its aides. There are a lot of things that we have learned from Head Start that can be brought into a broader collaborative process.

The fourth area is that of Head Start and the parenting system-wide, not just parent involvement. A lot of people now see parenting and parent education as something that we ought to do. Head Start has a lot of strength in that area. Working together with groups like the Junior League, the National Council of Jewish Women, the Kiwanis, and other groups that are also interested, can begin to build on what we already know. We all do not have to start from scratch.

The fifth area is that of transition and readiness. HHS already has transferred some money to the Department of Education. Head Start can begin to play a significant role in this area of transition. As we talk about readiness, Head Start is a significant partner -- not to do it all, but to begin to share with people how it has been done over almost 26 years. Head Start can no longer be the "lone ranger." We have to be a part of the total fabric of the community. Even if it is not always called Head Start, we can't be upset. We have to be proud that people have borrowed and utilized the concepts to make collaborations successful.

AUDIENCE DISCUSSION

Addressing Wahrman, an audience member asked several questions: 1) Are they able to pay Head Start salaries with education money? 2) Do they have a waiver from national Head Start to pool money from Head Start and education? 3) Are they violating percentage rules by mixing ineligible and eligible children for Head Start? 4) Shouldn't their program be turned into a day care since, according to recent statistics, 67% of women with children under eighteen years of age are now in the labor force? Wahrman responded that even though there are unions in many of the school districts, there has been no issue about salaries since the service is contractual. The money itself is not actually pooled. The funds are kept separate. Federal Head Start dollars are used to serve Head Start eligible children and state education dollars are used to serve the other children. In terms of percentage rules, Head Start dollars are used to serve children who are eligible; however, the rule is that up to 10% of the children served in Head Start can

be over the income guidelines. It has nothing to do with how many other children there are in the same class who are funded through other sources. Generally people are starting to mix different moneys to serve different children in the same setting to develop a more seamless child care system.

The usefulness of the ring versus the spoke model in thinking about local collaboration when dealing with a broad range of services and service delivery systems was highlighted. An audience member commented that it was especially useful in conceptualizing collaborations among medical and non-medical systems.

Roundtable 209 STAFF TRAINING AND PROGRAM OUTCOMES

Chair: **Judith Ramirez;** *Discussant:* **Laura Dittman**

The Effect of Head Start Leadership Training in Program Quality *Paula Jorde Bloom, Marilyn Sheerer*

Studies conducted in a variety of educational settings have repeatedly shown that the quality of staff training is a critical determinant of overall program quality (Arnett, 1989; Berk, 1985; Clarke-Stewart & Gruber, 1984; Jorde-Bloom, 1989; Howes, 1983; Oyemade & Chargois, 1977; Ruopp, Travers, Glantz, & Coelen, 1979; Vandell & Powers, 1983; Whitebook, Howes, & Phillips, 1989). However, the literature on training programs to improve the leadership behavior of educators has focused predominantly on intervention efforts with elementary and secondary school principals. Virtually no systematic research has been conducted documenting intervention efforts to improve the leadership skills of early childhood personnel.

This intervention study focused on the outcomes of a Head Start Leadership Training Grant that was awarded to National-Louis University in 1989. The grant was designed to upgrade the leadership capabilities of 31 Head Start teachers and directors in the Chicago metropolitan area. Participants received 32 semester hours of graduate credit leading to a master's degree in Early Childhood Leadership and Advocacy. This training program was unique both in its content and the way in which it was implemented. The conceptual model underpinning the program is grounded in adult learning theory. This perspective takes into account the distinctly different orientations, needs, and interests of adults who return for graduate study after working for several years. It encourages a facilitative role for the teaching faculty and an active role for students in structuring relevant learning experiences that are consistent with their career aspirations. The model also rests on the assumption that immediate application from new learning to real life situations reinforces what is learned. Links between theory, research, and practice are emphasized in a very useful and pragmatic way.

The program was structured so that participants received training in an intact cluster group. This collegial model tends to create an atmosphere of mutual trust that encourages the sharing of ideas and collaborative learning. Also emphasized was a problem-centered, site-specific curriculum, as well as an applied research project and visitations by faculty to participants' work sites. The content of the leadership training covered all components of the director's role: organizational theory and leadership style; child development and program planning; legal and fiscal issues; and parent, community, and board relations. The training took place over 16 months.

Training outcomes of this project are documented in three areas. 1) participants' level of perceived competence; 2) the quality of classroom teaching practices; and 3) the quality of work life for staff. In addition, a case study summary is presented to document in greater detail the impact of the training.

Participants' level of perceived competence was measured by using the Training Needs Assessment Survey (Bloom, Sheerer, Richard, & Britz, 1991). The TNAS assesses level of perceived competence in 28 knowledge and skill areas relating to early childhood education. These knowledge and skill areas can be grouped into five clusters. A comparison of pre-test and post-test data revealed a strong statistically significant increase in participants' level of perceived competence in all five cluster areas.

A modified version of the Early Childhood Classroom Observation Scale (Bredekamp, 1986) was used to assess quality of teaching practices. The classrooms of the Head Start participants were observed at the beginning of the 16-month leadership training and again at the end of the training sequence. To provide comparison data, a control group of Head Start classrooms whose teachers did not receive training was also observed. A series of t-tests were conducted to discern if there were statistically significant differences in the mean change scores that might be attributable to training. On all four subscales and on the overall classroom quality scores, there were statistically significant differences. The target group of Head Start teachers consistently had higher scores on the post-test observations.

The quality of work life for staff was measured through the use of the Early Childhood Work Environment Survey (Jorde-Bloom, 1989). The ECWES measures 10 dimensions of organizational climate, staff's level of current and desired decision-making influence, their level of organizational commitment, and their perceptions of how their current work environment compares with their ideal. On 9 of the 10 dimensions of organizational climate, the staff employed at the Head Start programs expressed more positive attitudes about the quality of work life at their centers; on three of the dimensions, the differences in mean scores reached statistical significance. Significant differences were also evident in staff's overall level of commitment to their centers, their perceived level of decision-making influence, and the degree to which their current work environment resembled their ideal.

This study provides compelling evidence that training can have a direct effect on participants' perceived level of competence, the quality of their teaching practices in the classroom, and the quality of work life at their centers. As a cost-effective, easily implemented in-service model, it has broad implications for improving the professional expertise of child care directors and teachers while at the same time promoting substantive change and improvement in their centers.

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Effects of a University-Based CDA Program on the Classroom Performance and Personal Development of Head Start and Teachers and Child Care Center Aides

Rosalyn Saltz, Christine Boesen, Kimberly G. Browning

This presentation will describe a university-based CDA training program, conducted by the University of Michigan-Dearborn since 1980, and the results of a longitudinal study of student characteristics and program effects on a sample of 213 preschool teaching staff who were enrolled in the program during the 1980s. The results of the study indicate that the University of Michigan-Dearborn CDA program produced striking improvement in the students' competence in classroom teaching behaviors, personal and professional attitudes, greater identification with the early childhood field as a profession, and increased feelings of self-esteem and empowerment. It also delineated certain student attributes at entry into the program that differentiated between those students who successfully completed the program and subsequently were awarded national CDA credentials, as compared with those who dropped out before achieving the necessary competencies.

Relatively few earlier research studies related to college-based CDA training programs and their outcomes have been reported in the literature; none included an observational component. The need for more research has been stressed, particularly research that documents changes in actual teaching behaviors in the classroom (Peters & Sutton, 1984; Pettygrove, 1981; Zigler & Kagen, 1981). Thus, this study supplies important new information.

The Child Development Associate (CDA) Program was originated in 1972 by the Administration for Children, Youth, and Families (ACYF) of the Department of Health, Education, and Welfare. It was designed to improve the quality of child care by establishing a performance based CDA Credential requiring demonstration of defined teaching competencies (CDA National Credentialing Program, 1986). As of fall 1990, 36,959 CDA Credentials have been awarded. Approximately 75% of these are Head Start teaching staff (CDA national office, personal communication, December 5, 1990).

Begun in 1980, the University of Michigan-Dearborn CDA Training Program was developed to assist preschool teaching staff to attain the nationally prescribed CDA competencies through a series of classroom courses. Course work is accompanied by intensive field-based training, enabling students to apply course content in their own classrooms. Students are observed in the classrooms in which they are employed four times in each 10 week semester. Visits are two hours in length with time devoted to observation and feedback. The typical student is enrolled for 17 months and receives 18 visits over the course of the training. Continuity is provided by having the same observer working with the student for the duration of the training. The UM-D observers and instructors, employees of the university, work directly together to provide integrated experiences for the student. All field observers have a minimum of a B.A. degree, with the majority having M.A. degrees in early childhood education or a related field and extensive teaching experience at the preschool level (approximately eight years). The students are generally supported and encouraged by their employers in their professional development in a variety of ways, such as employer-paid tuition and fees and work settings where students can implement change. The UM-D program operates under contract with Head Start agencies in eight southeast Michigan counties and the City of Detroit. As of spring, 1991 the UM-D program has enrolled 916 students; 391 have successfully completed the program and earned the national CDA credential. The program involves flexible and individualized planning as formulated by ACYF training model guidelines (U.S. Department of Health, Education, and Welfare, 1978) and offers six two-hour academic courses and six two-hour corresponding field courses. Credit hours required for subjects in the study ranged from 4 credit hours to 24 credit hours, based on the initial and ongoing competency levels of each student.

METHOD: Subjects in the UM-D study were 213 preschool teaching staff who were enrolled in the program between 1982 and 1987. Of these, 166 (78.3%) were Head Start and 47 were private center staff. One hundred and twenty-two students completed their programs and attained CDA credentials, while 91 dropped out of the program. Approximately 26% were employed as directors or teachers, and 48.8% were employed as teacher aides. The majority were between the ages of 25 and 45 (74.7%), were white (73.7%), married (67%), and had limited education and teaching experience. Demographics for the Head Start only group were similar to the total sample.

The data were obtained through pre- and post-test measures (the latter after an average of 4.2 semesters, or 17 months of enrollment, in the UM-D CDA program) based on student self-report questionnaires as well as on observations of the teachers' classroom performance. Questionnaires included items about demographics as well as questions relating to life and job satisfaction, professional and personal self-esteem, and feelings of competency versus helplessness as measured by the Rosenberg Self-Esteem Scale (Rosenberg, 1962) and the Rotter Locus of Control measure (Rotter, 1966). Instruments were administered in the students' college classrooms at an early point of their participation in the UM-D program and again at the end of their training. Two hundred and thirteen pre-questionnaires were completed, and 84 pre-post questionnaires were secured and analyzed. Observations of teachers classroom performance included two measures based on the CDA functional areas. Students were observed during an entire classroom session upon beginning and completing their program. Due to their varying positions and levels of responsibility within their agencies, all students were also observed for 10 minutes while implementing a standard activity specifically developed for this study. Observation data utilizing this measure were secured for a sample of 106 of the CDA students at the initiation of their training and 70 pre-post observations were secured for analysis.

The observation measures used to assess classroom performance consisted of checklists and rating scales, designed to reflect the CDA functional area-competency structure and the UM-D course content. The measures were abbreviated versions of the observation checklists developed by the UM-D CDA program and utilized by its field observers during their regular visits to the students' classrooms. Ratings of the students' competency for each functional area were made on a three- point scale, with '1' indicating little or no training required and '3' indicating that extensive training was necessary to meet the CDA competency standard. Items retained for the observation measures used for purposes of the study were those with inter-observer percent of agreement of at least 67% (the percent of agreement for items in the research observation measure ranged from 67% to 100%). The measure as a whole appears to be quite reliable. Inter-rater percent of agreement utilizing this instrument for classroom observations was obtained for 12 pairs of observers (one the student's own field adviser and the other a "blind" observer), with the percent of agreement ranging from 78% to 88%. The particular behaviors assessed by the observation checklists in the UM-D CDA evaluation study were analogous to teacher behaviors previously found to have the most salient effects on positive child outcomes, based on findings of the ABT National Day Care Study (Ruopp, Travers, Glantz, & Coelen, 1979).

Through the use of chi-square analysis, demographic information on all subjects was analyzed to discern potential differences between those students who did and did not complete the program successfully. T-test analysis was used to assess the effect of the UM-D CDA training program upon student self-esteem and feelings of control over life events. Additionally, t-test and chi-square analysis of mean observation scores as well as individual functional areas were evaluated.

RESULTS: On the pre-classroom observational data, most entering CDA students were rated as requiring moderate to very extensive training to achieve competence in some to all of the CDA functional areas addressed. Entry observations suggested that areas of relative strength for the teachers and aides at the beginning of training were their teaching behaviors in the functional areas of Safety and Self-Concept. Teaching behaviors in the functional areas of Physical, Cognitive, and Communication were those most in need of improvement. The post-observation data indicated that students who completed the UM-D CDA program achieved performance competence in all of the functional areas included in the study. The t-tests indicated that all pre-post differences were statistically significant ($p < .001$).

Analysis of the pre-post questionnaire data yielded a number of interesting findings. The Rosenberg scales measure the self acceptance aspect of self-esteem. The t-test analysis of pre- and post-test Rosenberg data indicated increased feelings of self-esteem and feelings of worth on the part of those students who completed the program. Students showed significant and positive change on four of the six Rosenberg scales. The scales require students to respond to statements such as, "I feel that I am a person of worth, at least on equal plane with others," "I feel that I have a number of good qualities," and "I wish I could have more respect for myself." Scales that indicated significant changes had probability values ranging from $p=.048$ to $p=.003$. Analysis of scales that were not significant ("I take a positive attitudes toward myself," and "On the whole, I am satisfied with myself") suggested that students at point of entry already rated themselves highly on these two scales. Therefore, significant positive change was not possible. Successful completion of CDA training was also associated with greater feelings of personal efficacy and responsibility for the outcomes of important life events, as indicated by pre-post changes in the Internal Control score of the Rotter Locus of Control measure $p=.008$.

No differences were found in pre-observation measures between the classroom performance of those credentialed versus those who did not complete the program. However, there were significant differences in the pre-self-report data on demographic and attitude variables between these two groups. Demographic variables that discriminated successful students from those who did not

complete the program were age (chi-square=.025), marital status (chi-square=.021), and length of time as preschool teacher or aide (chi-square=.010). Those less likely to complete the UM-D program and attain their credentials were those candidates who upon entry to the program were under 30 years of age, single, and had less than two years of teaching experience. They also gave responses that indicated rather low regard for early childhood as a teaching profession. A factor analysis of responses at entry to the UM-D program to an array of questions regarding the respondents' views of the extent of professionalism of various occupations yielded very different patterns for credentialed versus dropped students on how they viewed their own and other professions. The successful candidates were more likely than those in the "dropped" group to include teachers and caregivers of infants and young children as "teachers" in the same professional cluster as elementary and high school teachers and nurses. In addition, those in the "dropped" group tended to feel that their jobs were not "utilizing their skills and talents."

It is interesting to note that the UM-D CDA program appears to have long-term professional and personal effects for those who successfully completed the program. Saltz and Boesen (1985) reported that 44% of students who had B.A. degrees before entry into the UM-D CDA program and 71% of others received promotions and/or pay raises as a result of their CDA credentials. Within 24 months of program completion 50% of students with less than a B.A. degree had completed additional college coursework and 42% were formally enrolled in a four-year degree program. These findings were counter to the findings of previous studies (Pettygrove, 1981; Peters & Sutton, 1984), where promotions and pay raises did not result after CDA credentialing.

DISCUSSION: The results of this longitudinal study indicate that the impact of the UM-D CDA Training Program was a positive one for many students, both personally and professionally. On a personal level, successful students developed high acceptance of self (as measured by the Rosenberg scales), as well as feelings of personal control over their lives (as indicated by the results of the Locus of Control measure). As teachers, the CDA students who successfully completed the UM-D program became skilled professionals who could have a stronger, more positive impact on the intellectual, social, and physical development of the children in their classrooms.

Overall, the results of the study support the conclusion that a CDA college-based education program can support the original goals of ACYF for the national CDA Program by helping preschool staff become competent teachers as defined by the CDA competency structure. In addition, individuals who completed the UM-D program showed evidence of greater self-esteem and feelings of personal efficacy -- characteristics that are important for effective teaching. In short, the type of CDA training program undertaken by UM-D has been shown to be very potent in promoting positive teacher change.

The authors, however, wish to express a concern that these very positive results will be generalized to conclude that the attainment of the CDA credential, in itself, will inevitably lead to the levels of personal and professional growth found for the subjects in the UM-D CDA program sample. A decade ago, the issues involved in quality control of higher education-based CDA training programs and their relationships to traditional teacher education programs were discussed and debated in the Spring 1981 issue of the Child Care Quarterly. Major differences of opinion were presented on various aspects of "quality control" of higher education CDA programs, including admission and course requirements as compared to the standard academic courses, etc. (Berk, & Berson,1981; Jones, & Hamby, 1981). However, there was agreement on the value and central importance of the training criteria set by the U. S. Office of Child Development for funding of higher-education training programs. In fact, these criteria were cited by Jones and Hamby (1981) in support of their contention, in response to criticisms by Berk and Berson (1981), that basic standards had been mandated for CDA training that would insure its quality. Jones and Hamby stated that "the training criteria are generally adhered to since they have become hallmarks of CDA training and associated with 'quality' CDA training. Findings are that the more successfully the training programs deliver training according to the training criteria, the more successful are their trainees in acquiring and demonstrating the CDA competencies during the credential award process." (Jones & Hamby, 1981). The training criteria the authors cite are: training must be based on the CDA competencies; valid credit must be offered; academic and field experiences must be integrated; 50% or more of the trainee's total training time must be spent in supervised field work; training must be individualized according to each trainee's strengths and needs with respect to acquisition of the CDA competencies; training must be flexibly scheduled so that length of training varies according to each trainee's rate of acquisition of CDA competencies.

The UM-D CDA training program, along with other institutions of higher learning, has adhered carefully to these guidelines. The highly significant and positive results obtained from this study followed these stringent guidelines. However, as of 1992, a new national CDA model for college-based training and CDA competency assessment is scheduled to go into effect, with standards that do not appear to include criteria 3, 4, 5, and 6 of the long-standing OCD guidelines as listed above. Therefore, the new standards are much less stringent than those of the educational model being evaluated here. The authors of this paper are concerned that quality in training programs may be sacrificed under the new Council Model, and that the positive effects of the CDA training program documented in this paper may not be replicated under the new model. It is recommended that, at the very least, before fully abandoning current CDA training and assessment guidelines, a similar evaluation study be undertaken to determine whether the kind of positive effects of training reported here can be replicated with the new training model.

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Voices for Change: A Partnership Approach

David W. Beer, Barbara T. Bowman, Patricia D. Horsch

In an effort to enhance the power and effectiveness of urban education serving low-income children, the Erikson Institute and six Chicago public schools entered into a four-year partnership designed to support teachers, administrators, and local school councils as they examined curriculum and classroom practice and implemented those appropriate for their school communities. During this project a unique approach to changing the quality of pre-primary and early primary classrooms, including two Head Start classrooms, emerged. The approach combined a commitment to developmentally appropriate classroom practice, a philosophy of change, and a four-pronged approach to support services.

This paper will outline the project and document and discuss three segments of the evaluation of the partnership: 1) a survey of teachers new to the project, 2) a survey of teachers who had joined the project in earlier years, and 3) continuation of a study of selected classrooms to track their long-range progress in providing classroom experiences that were both individually and age-appropriate for children.

The project operated on the conviction that at least two ingredients are necessary to successful educational experiences for young children: classroom environments in which children are actively and meaningfully engaged in learning situations that address the needs of the whole child and reflect the importance of social interaction between adults and children, and curriculum constructed by teachers that meets the cognitive, social, emotional, and physical needs of the children in the school community.

The philosophy that Erikson Institute brought to its schools was that change will be more complete and more permanent if teachers construct their own educational programs. Erikson personnel took an enabling, rather than a directing, approach to change in these schools, providing knowledge, stimulation, and support to teachers, but allowing teachers to develop their own direction and objectives in a way that related to their teaching beliefs, knowledge of their school community, and teaching style. The goal was to create a process of change that permitted ownership and autonomy of new ideas and practices. To accomplish this, field-based consultants worked with the six schools and established partnerships based on strong interpersonal relationships with teachers, parents, and principals. The partnership lasted from 1987 to 1991. Consultants focused primarily on a pre-kindergarten classrooms during the first year, kindergarten during the second year, and first, second, and third grades during the third year. During the fourth year consultants related to the entire pre-kindergarten to third grade staff as an Early Childhood Unit.

The distinctive quality of the Erikson/Public Schools Partnership was its commitment to facilitating the process of adult (teacher/principal) development. To this end, project consultants discarded traditional externally mandated models of change, which prescribe curricula, educational practices, and materials. Such models are static and often imposed with little attention to teacher belief systems and individual teaching and learning styles, and ignore the uniqueness of communities and classrooms. As a result, when mandated changes conflict with teachers' modes of thinking, teaching habits, and desired outcomes, they may silently continue their existing classroom procedures, or, if forced, implement new curricula in such a way that failure is inevitable. If externally designed curricula do not work, teachers may quickly abandon them, since they feel little investment in or control over them.

Consultants sought to promote reflection and articulation of teachers' currently held educational beliefs with patterns of activities and interactions in the classroom. At the same time, through support strategies described below, they looked for opportunities to introduce current knowledge and promote active dialogue to stimulate internally motivated changes in beliefs and practices.

Through attentive listening, consultants encouraged the development of each teacher's "voice," an expression of thoughts and feelings about teaching derived from the teachers's own experience. They encouraged each teacher to exercise her "voice" -- to respond to new ideas, struggle with them intellectually and in the classroom, and construct new understandings of children's development and culture and how curriculum practices interface with them. Encouraging each teacher to develop her professional "voice" gave both parties -- teacher and consultant -- an equal place in the change process. It provided a basis for sharing thoughts and expressing a full range of feelings, both positive and negative, about new ideas. It provided a meaningful avenue to connect a body of knowledge with patterns of classroom activity. It provided connection, not isolation, as colleagues in the school risked trying new ideas, discussed their results, and refined their beliefs and practices.

Most of all the model provided teacher choice. The consultants' regular school visits reminded teachers of the opportunity to try new practices. Consultants encouraged participation and were available to help. Participation in activities of the partnership,

however, was strictly voluntary. Allowing each teacher to develop her own voice and gradually integrate developmentally appropriate practices required great patience, but the staying power of teacher changes more than justified the wait.

SUPPORT STRATEGIES: During the course of the project, consultants developed a four-pronged support strategy that permitted Erikson consultants to dance between the twin commitments to developmentally appropriate practice and letting teachers find their own way: 1) classroom consultation with individual teachers in their classrooms; 2) workshops and in-service meetings with project teachers; 3) visits to carefully selected classrooms; and 4) videotaping teachers and children.

Classroom consultation provided a relationship of trust and support in the context of which a teacher could feel more comfortable trying out new ideas in the classroom. Classroom consultation, which occurred only at teacher invitation, provided consultants the opportunity to learn about the complexity of classroom life and a particular teacher's style of classroom leadership and her preferred teaching-learning environment. Consultants modeled appropriate practices, provided information, discussed related topics, and celebrated teachers' accomplishments.

Workshops provided teachers with enhanced understanding of how learning occurs and of how children respond to various learning settings and pedagogical arrangements. They provided information on topics salient to the development of new teaching practices. Workshop size ranged from grade level presentations at individual schools to project-wide workshops. The promotion of collegiality was an important objective of workshops.

Visits to other carefully selected classrooms provided evidence to teachers that their peers, teaching real children in real classrooms, can use innovative methods over the long term with outstanding results. Again, "freedom of choice" prevailed. Project participants were free to identify classroom activities to discuss and/or emulate. The consultant, visiting the classroom with the teacher(s), helped to connect the observed practices to educational theory and formulate a framework for future discussion. Later, the consultant assisted in the implementation of the new ideas in the classroom.

A limited amount of videotaping occurred during the project. The videotaping process stimulated further reflection on the part of teachers. They could see "into the classroom" in a manner not feasible when they were "in charge."

EVALUATION: The evaluation for the 1989-90 school year focused upon teacher responses to the four support strategies described above and on changes in the classroom. We report three segments of that evaluation here: a survey of teachers new to the project concerning the impact of the four support methods, a survey of teachers who had joined the project in earlier years concerning the maintenance of classroom changes, and a study of selected classrooms by an independent observer to track their long-range progress toward developmentally appropriate classrooms.

New teachers were surveyed by mail concerning their first year of participation in the project. Of particular interest in the survey were the four support strategies: classroom consultation, workshops, visits to other classrooms, and videotaping. Teachers were asked to evaluate each intervention method and to indicate any changes they felt had occurred in their teaching or in their classrooms as a result of a particular method. Then teachers were asked to evaluate the project as a whole, again focusing on whether they felt any changes had occurred in their classrooms or teaching that would not have occurred without the project. Each of the four intervention methods was considered useful by a substantial majority of the respondents. In addition, more than 60% of respondents attributed specific changes in their classrooms or teaching styles to each of the styles of intervention.

Classroom consultations. Respondents cited the non-judgmental attitude of the consultants, their presence in the classroom to model new ideas with their children in their classroom, their providing time and encouragement for teachers to try new ideas, and their continual stimulation as professional colleagues as reasons for the helpfulness of consultants. Those who did not enjoy working with the Erikson consultants either experienced personality conflicts with the consultants or felt that the ideas the project recommended would be impractical in the Chicago Public Schools at the time.

While consultants were considered helpful by most respondents, this helpfulness did not translate directly into change -- only 63% of teachers attributed changes in their classrooms directly to the consultation program. Changes attributed to consultants included improved teacher-child interactions, increased cooperative learning, and use of whole-language approaches to literacy.

Because of difficulties with substitutes at certain schools, visitations were not arranged for all teachers. Videotaping was an optional project activity. Workshops, especially the 1989 summer workshop, were prized by teachers; 96% of respondents indicated that project workshops were helpful to them. Teachers credited workshops with introducing them to a wide range of literacy and math enhancements, including the whole-language approach to reading and writing and various techniques for helping children learn mathematics. They valued the opportunity to hear and exchange ideas with other professionals. And they enjoyed the opportunity to make items for use in the classroom.

Seventy-nine percent of teacher respondents attributed changes in their classrooms to workshops. These divide roughly into two categories: the introduction of new curricula or methods into the classroom based on an idea or concept presented at a workshop, or augmentation of the level of teacher enthusiasm and energy in the classroom, stimulated by contact with other professionals. One effect of workshops that generally is not counted as classroom change by respondents is augmentation of teacher knowledge and/or understanding of child development and the learning process.

Visitations of other classrooms are identified as useful by 93% of the teacher respondents able to participate. It is notable that the percentage of respondents attributing change in their classrooms to visitation of another classroom (87%) is nearly as high as the percentage of teachers who found visitation helpful (93%).

In the respondents' discussion of the value of visitations to other classrooms, we find repeated reference to the importance of seeing innovative ideas in practice in real classrooms with real children. Teachers seem more apt to adopt ideas seen in real classrooms than ideas presented in a more artificial setting, such as when an extra assistant (such as a consultant) is present in the classroom or when the teacher is with other teachers at a workshop. One other important benefit of visitation is seeing that teachers elsewhere confront some of the same problems with children and physical facilities as the respondents. This realization is important in stripping away resistance to change.

Videotaping was an optional activity in which teachers were invited to participate. Only four teacher respondents opted to participate, but those teachers were unanimous that video-taping was helpful, and three teachers indicated that it had made a difference in their tone and style of speech in interactions with children.

All of the major categories of intervention, then, not only were perceived as helpful by teacher respondents, but in fact resulted in substantial classroom change. These changes fall into three rough categories: improvement in teacher interactions with children; improvement in curriculum, especially in the fit between curriculum and children's developing capacities; and improvement of the environment in which learning was occurring

Continuing teachers completed a mailed questionnaire on change in their classrooms. The questionnaire focused on whether teachers had been able to sustain changes made in their classrooms during the first project year. The design of the project required a more intense involvement from teachers in the first year, followed by more intermittent classroom support from consultants in subsequent years. The reduced level of support was certainly noticed by teachers. Fully a third of respondents felt that the new level of involvement in the project was not sufficient. And, while 83% of respondents indicated that the reduced level of direct Erikson support in their classrooms did not interfere with their ability to maintain the changes they had made in their classrooms in previous project years, nearly half of that 83% indicated some sense of loss because there were no regular classroom consultations.

One of the critical issues for this survey was the maintenance of change. Could teachers sustain changes made in one year's intense project effort in subsequent years, given the reduction in the level of support that the project required? We asked teachers first to identify the kinds of changes they had made in their classroom as a result of the project, and then to indicate whether they had sustained these changes with reduced project support. The changes identified ranged broadly, but can be grouped in the following general categories: curriculum improvements in literacy and math; more developmentally appropriate expectations for children, and hence, higher-quality interactions with them; changes in the structure of the classroom and the manner in which classes were conducted that made these more appropriate for children; and changes in children's experience of school.

A full 92% of respondents indicated that they had been able to sustain the changes they had made in their classrooms during previous years, and a number indicated that they were building on those changes. All respondents indicated that their interest in professional improvement had increased as a direct result of the project. Only half of the respondents, however, decided to maintain their membership in the Chicago Association for the Education of Young Children, a professional organization that promotes many of the ideas taught in the project. This underlines the importance of continuing to encourage interaction with professional peers, so that teachers do not return to the professional isolation they experienced before the project.

Because of the potential unreliability of teacher reports about change in their own classrooms as well as the interest our consultants have in showing change, we decided to track the progress of a subset of our classrooms through the eyes of an outside observer. We felt that the project's emphasis on understanding child development and developing more child-centered approaches to literacy and math education in pre- and early primary classrooms would also effect other areas of the classroom. Child-centered curriculum in math, for instance, might encourage more child-centered science or social studies. In order to index some of the changes occurring in the classroom, we hired an educational consultant to observe each of 10 classrooms, using the NAEYC Accreditation Observation Schedule. Half-day observations were conducted during the spring period of two different school years (1988-89 and 1989-90) on a sample of ten classrooms in four different project schools. Classrooms chosen represented a variety of teaching styles and responses to the project, but were identified by project specialists as classrooms on which the project was having an impact at the time of the first observations. We were concerned about whether project-induced changes would be sustained in classrooms where involvement in the project was less intense, and whether project teachers in such classrooms would continue to grow.

We used indices from three parts of the NAEYC Observation Schedule: Interactions among Staff and Children, Curriculum, and Physical Environment. We used all of the questions in the first two categories, and selected questions from the third. Included in the interaction segment of the observation schedule are various indices of staff responsiveness to individual children, ranging from developmentally appropriate behavioral expectations to constructive methods of classroom management. The curriculum segment focuses on developmentally appropriate curricular objectives, including providing choices for children from a broad range of curricular goals. The physical environment segment concerns structuring and utilizing the physical environment in safe, developmentally appropriate ways; we selected those over which we felt the teacher could exercise some control.

In addition, the observation scores indicate that three of the classrooms (numbers 1-3) have made significant progress in the year between the observations. Classroom 1 has made substantial improvements in both staff-child interactions (34.6%) and curriculum (64.3%). Classroom 2 shows a 41.8% improvement in the quality of staff-child interactions. Classroom 3 shows a 41.4% improvement in curriculum and a 29% improvement in use of the physical environment.

CONCLUSIONS: Based on the results of surveys of new participants in the project, surveys of continuing participants in the project, and observations of selected teachers, the Erikson Institute/Public Schools Project had a positive impact on pre-primary and primary classrooms. Its particular combination of support methods is reported by teachers to be helpful and to stimulate teacher and classroom change. The participants feel strongly that they have benefited and continue to benefit from project efforts. Moreover, there are strong indications, in the form of teacher statements and observation results, that improvements in project classrooms are permanent. In fact, a number of teachers have not stopped with the improvements made under the watchful eyes of Erikson Institute consultants, but have continued to innovate and try new ideas. These findings suggest that, in the context of the development of a reflective teacher voice, the combination of workshops with classroom consultation and visits to exemplary classrooms is an effective method of stimulating and supporting teacher change.

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Discussion *Laura Dittman*

Each of these research teams reports success in achieving their goals in training techniques. In general, they sought to improve classroom practices and devise curricula content appropriate to the ages of the children involved. They also strove to improve self image and the confidence in the teachers. Bloom and Sheerers also looked at the organizational climate that resulted, and even though they set up quite different schedules and realized different methods they seem to have relied on two basic structural elements. One is the courageous move to consult with a student on what he or she wants to learn. Way back in the upheavals of the 60's, university students demanded the right to take charge of the university and their classes and their courses. We now know that our teaching goes nowhere unless it reaches the student.

The second point of agreement in all three of these papers is that the student must be able to put what has been taught into practice immediately. Recently there was a discussion on the radio about efforts to attract young people to science. "We teach science all wrong," said the man being interviewed. "If sports were taught as science is taught, we would have no athletes."

I might add a third element to this success story. These research workers were interested in these teachers. Bloom makes a poignant statement -- the role of early childhood educators is a lonely one. Some of the gain and self-esteem in perceived level of competence must surely be attributed to the caring of these researchers who intervened in the lonely lives of educators in a positive way.

Let me conclude by asking for more information on some of the intriguing points made in the research reports. In the report of the university CDA program by Saltz and Browning, the drop-out rate was an astonishing 43%. At the outset, the candidates for training were found to have a very high level of satisfaction with self. How can we reconcile this level of satisfaction with self with the high drop-out rate? Does self-satisfaction lead to complacency and unwillingness to research new things? A second point of interest in that study was the recommendation that an evaluation study be undertaken to determine whether the positive effect of CDA training can be replicated with this new model by the Council for Early Childhood Professional Recognition. What recommendations would the researchers make on a study they think should be done before this model is implemented? Would they wish to change the design of the study that they are reporting and in what way would they suggest doing it?

In the study by Bloom and Sheerer, what I find myself thinking now is that a high-impact, active, high-reward intervention that is, a master's degree at the end, is our reward. The words "problem-centered" and "site-specific" were used to describe the training approach. Although she took a minute to elaborate on that in her report, I would like to hear some elaboration on these descriptive terms. Is her expectation that a student would design a research study? It also gives people the opportunity to do research, and it is exciting to share that. I wonder if they would provide us with some examples of the problems selected by the students.

The third study also has some intriguing mysteries as they reported on work with the Chicago primary and pre-primary schools. Their analysis, was developed on questionnaires sent out to both first-year and continuing sets of teachers, but they got just over a 50% response rate, and I wonder how much they think this might have skewed their findings in some way. What efforts did they make to track down those who failed to respond? Or is there information on the ways those who did not respond differed from the other half who did? More important, however, was the way they were able to perceive the level of trust in the school system. There was a suggestion made that they set up early childhood units in the schools, but people apparently didn't trust each other

enough. I want to know if this was because there were difficulties between the primary teachers and kindergarten/early childhood people. What was going on there?

ROSALYN SALTZ: I wanted to clarify something that obviously was not clear in the paper or in my presentation. There were two issues. First, our teachers were more or less mandated. We had to deal with the same problems you did, because it was required as a condition of their continued employment, and we dealt with exactly those problems. The second was that in terms of this mandate and the high drop-out rate, the ones who dropped out tended to be those who were not very serious. They were put in there kicking and screaming, and although many of the others were also kicking and screaming they were serious, they really did care.

PAULA JORDE BLOOM: Let me make a couple of brief comments. I think you were very perceptive in picking up on the issue of the research projects and the issue having to do with the curriculum being problem centered and site specific. The research project has been an important one for us with respect to this training and our leadership and advocacy program at the college in that it often is the tail that wags the dog. It often keeps students from enrolling in the program, because there is a great deal of anxiety, as you can well imagine, of having to execute a research study. Therefore, it is the one thing that requires the greatest amount of individualized work with participants, and when you have academic capabilities that truly span the full spectrum -- individuals who are doing very straightforward descriptive survey research to those who are doing very sophisticated analyses with publishable pieces at the end -- the degree of individualized consultation during that period of time is very taxing to the instructors. That is probably a gracious characterization of it. Doing the research study, believe it or not, is why at the end of the program they say, my God, I don't believe I'm an expert now in this particular area. For that reason alone we keep it in the program, - even though they sometimes come kicking and screaming through to the end -- to finish it. The topics, however, allow us in this particular model to say that we have conducted this research study, we had 31 independent research studies affecting change in these programs in some way, and the range of them is just marvelous. Let me just give you a couple of examples.

Several of the directors tried their own intervention studies in their own programs. One was doing a parent education program, another was doing a staff training program -- the High/Scope curriculum. Another was implementing some training in math and science. The wonderful thing about that is the staff-development practices that we modeled in our program about getting input from participants. They were then able to internalize and model in their staff-development strategies with their own staff. Those were exciting intervention programs. Some were head teachers whose concerns were more classroom focused, children focused. They were coming in with grandiose studies -- I want to change children's self-esteem, they would say - and we would say that there are some limitations there.

Roundtable 210 NATIONAL EVALUATIONS

Co-Chairs: **Soledad Sambrano/Nancy Rhett;** *Discussant:* **Sheldon White**

Design for the National Impact Evaluation of the Comprehensive Child Development Program

Robert St. Pierre

The Comprehensive Child Development Program (CCDP) was authorized by the Elementary and Secondary Education Act of 1965 as amended by the Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988, Part E of Chapter 1 of Title 1 (P.L. 100-297). The program is intended to demonstrate the effectiveness of a comprehensive response to the multiple problems of low-income families. According to the law, it is the purpose of the program to "provide financial assistance, on a multiyear basis, to projects that are designed to: encourage intensive, comprehensive, integrated, and continuous supportive services for infants and young children from low-income families; enhance their physical, social, emotional, and intellectual development and provide support to their parents and other family members; and target services for infants and young families who have incomes below the poverty line and who, because of environmental, health, or other factors, need intensive and comprehensive supportive services to enhance their development" (P.L. 100-297, Part E, Sec. 2502).

In 1989 and 1990, the Administration for Children, Youth, and Families (ACYF) in the U.S. Department of Health and Human Services (DHHS) provided CCDP funding to 24 agencies across the country for a five-year period to provide and coordinate a broad range of services to low-income families. The CCDP sites are located throughout the country: 18 are in urban areas and 6 are in rural areas. Nine CCDP grantees serve primarily white families, eight serve primarily African-American families, six serve primarily Hispanic families, and one provides services to an even ethnic mix. At least one project is situated in each of DHHS's 10 regions. The CCDP grantees include universities, hospitals, public and non-profit organizations, and school districts.

Although the CCDP projects include a variety of program models, each project is required to meet certain criteria. According to the DHHS Program Announcement for CCDP, the projects must: intervene as early as possible in children's lives; involve the entire family; provide comprehensive social services to address the intellectual, social-emotional, and physical needs of infants and young children in the household; provide services to enhance parents' ability to contribute to the overall development of their children and achieve economic and social self-sufficiency; and provide continuous services until children enter elementary school at the

kindergarten or first grade level. For young children, the core services that must be provided through CCDP include early childhood development programs; screening, immunization, health treatment, and referral; early intervention services for children with or at risk for developmental delay; nutritional services; and child care services that meet state licensing requirements. For parents and other household members, CCDP services must include prenatal care; education in infant and child development, health care, nutrition, and parenting; referral to education, employment counseling, and vocational training as appropriate; and assistance in securing adequate income support, health care, nutritional assistance, and housing. Most CCDP projects use "case managers" as keys to the provision of coordinated services. The case managers conduct needs assessments and have ongoing contact with each of their families. They are responsible for the direct provision of some services as well as for making sure that participating families take advantage of other services.

The legislation (P.L. 100-297) also mandates an evaluation of CCDP. To fulfill the Congressional mandate and to facilitate adequate monitoring and implementation of the CCDP project, ACYF divided the evaluation into two parts: the design and implementation of the CCDP projects, including the development and implementation of an automated management information system; and the design and implementation of a national impact evaluation. In 1989, the task of designing and implementing a process evaluation, including an automated MIS, was contracted by ACYF to CSR, Inc. Then, in April of 1990, the task of designing and implementing an impact evaluation of CCDP was contracted by ACYF to Abt Associates Inc. The five-year impact evaluation has three main objectives, which are to: assess the impact of the program on the development of children, parents, and families; determine whether the CCDP concept of having an agency coordinate a comprehensive set of services to low-income families is feasible and effective; and search for effective practices that can be used to improve comprehensive early intervention projects for low-income families. The CCDP impact evaluation will assess the effects of CCDP on multiple areas of impact for children, parents, and families. In addition, the impact evaluation will examine mediating factors that help to explain variation in CCDP outcomes for different families and different projects. The analysis for the evaluation will involve a comparison of input, process, and outcome measures taken on families randomly assigned into CCDP and comparison groups.

DESIGN: The impact evaluation is designed to allow experimental comparisons of CCDP families with a randomly assigned comparison group, across and within the CCDP projects, with respect to four major sets of child and parent outcomes over the course of four years of CCDP services. The experimental nature of the research design means that the evaluation will be able to provide strong evidence with respect to questions about program impacts.

The evaluation will assess the effects of CCDP on a set of focus children. The focus child is measured because that child has the opportunity to receive CCDP services from birth through age 5 (depending on when the family was recruited, prenatal services will also be provided), and hence offers the best chance to demonstrate the outcomes associated with a program that starts at birth. Relevant questions are: What are the effects of CCDP on cognitive and language development? On social-emotional development? On physical development and health?

CCDP offers multiple services to families. Some of these focus directly on improving child development (quality early childhood programs), and others on supporting greater economic self-sufficiency (job training, education, child care). In addition, CCDP programs are concerned with supporting parent development more broadly, both as a mediator of outcomes for children and also as secondary effects that improve the quality of life for poor families. Relevant questions are: What are the effects of CCDP on economic self-sufficiency? On parenting beliefs and behaviors? On quality of the home environment? On psychological and physical well-being? On life management/coping skills?

Several research questions concern the interactions between mediating variables and outcomes of CCDP for children, parents, and families. One set of mediating variables are family background characteristics. The following research questions will be addressed: How do the effects of CCDP on children and parents vary as a function of family characteristics, such as maternal age, maternal race, maternal history, and infant health status? A second mediating variable is site, which includes characteristics of the community in which the project is located as well as the nature of the project itself. While the major research questions on outcomes for children and parents will be addressed at an aggregate level for the group of CCDP sites, this set of research questions asks about the way in which CCDP effects vary across the 24 projects in which CCDP is being implemented. Relevant questions are: How do the effects of CCDP for children and parents vary as a function of the site in which the project is implemented? Are there groups of sites (program models which share common approaches of characteristics) that have differential outcomes for children and parents? Because CCDP does not represent a single intervention, a third set of mediating variables to be investigated represents differences in the types, quantities, and qualities of the services provided. Among families, there will be differences in the types and intensity of services received, based to some extent on family need and to some extent on the services available in the community. Relevant questions are: How do differences between program and comparison children and parents relate to differences in the quantity of services received by families? Another mediating variable is time in program. Although the evaluation ultimately is concerned with differences between program and comparison families at the end of four years of the intervention, the design involves repeated measurement of child and family outcomes over the intervention period. Relevant questions are: What is the effect of length of participation on differences in outcomes for program and comparison children and parents? The final set of research questions has to

do with the costs of CCDP. The evaluation will determine the per-family cost of CCDP and will assess the relationship between costs and effects. Relevant questions are: What is the per-family cost of CCDP? How do the effects of CCDP compare to the costs?

METHOD: The Department of Health and Human Services awarded CCDP grants in the fall of 1989. The CCDP program announcement (Federal Register, 1988) included language stating that applying projects would have to be willing to recruit more families than could be served and then randomly assign those eligible families to program and comparison groups. The eligibility guidelines for CCDP specify that a family must, at the time of enrollment: have income below the Federal Poverty Guidelines; include a pregnant woman or include a child under one year of age (the focus child); and agree to participate in CCDP activities for five years.

CCDP grantees were selected, in part, on the basis that they had a sufficiently large eligible population to support a randomized study in which potential program participants would be recruited and randomly assigned to one of three groups: a program group; a comparison group; and a replacement group. Prospective grantees were told that the group of recruited families had to be proportionately representative of the poverty population of the grantee's recruitment area in terms of ethnicity and age of the primary caretaker. Grantees in urban areas were asked to recruit 360 eligible families at the start of the program (120 to participate in the program, 120 for the comparison group, and 120 for the replacement group), while grantees in rural areas were asked to recruit 180 families (60 for each of the three groups). All program and comparison families (about 2,520 in each group) will participate in the evaluation. The process of random assignment was monitored by staff at DHHS and at CSR Inc. (the management support contractor), who prepared detailed instructions on the mechanics of randomization.

Within each family, intensive measurements will be made on a focus child and the mother of the focus child. A feasibility study will be undertaken during the first year of the evaluation to determine whether a subset of the evaluation measures ought to be administered to fathers of focus children. Both the program and the evaluation are longitudinal in nature. That is, CCDP intends to provide services to the same families for multiple years, and hence the evaluation will measure those families over time. At the conclusion of the evaluation, focus children will range in age from 4 to 6 years old.

DESIGN ISSUES: The research questions listed earlier call for the following types of information on individual families: baseline demographic information on families and on the focus child's birth status; physical, cognitive and social-emotional status of children over the period of the evaluation; physical, psychological, and economic status of parents as well as family resources and relationships over the period of the evaluation; and quantity and nature of the services the family receives over the period of the evaluation.

Families in the evaluation will be contacted every six months for assessment. Contacts with families will be scheduled to coincide with the focus child's birthday (plus or minus two weeks) and the focus child's "half-birthday" (plus or minus two weeks). The full battery of measures will be administered at the annual assessment sessions that coincide with the child's birthday. This battery includes direct assessment of child development and a full parent interview. The assessments scheduled on the child's half-birthday will be less extensive. A smaller set of child outcomes based on parent report (rather than direct assessment) will be measured, and a subset of parent outcomes will be assessed in a shortened version of the parent interview.

All evaluation data will be collected by one or the other member of a two-person on-site team (one team will be hired in each site), consisting of an on-site researcher (OSR), who is a permanent Abt Associates staff member, and a child tester (CT), who is paid on an hourly basis. The child tester will be blind to the assignment of families to program and comparison groups.

Data collection began in April 1991 and will be continuous through September 1994. Aside from the data abstracted from birth records, all data on children and families will be collected through tests of children and in-person interviews with parents. Generally, data collection will take place in each family's home. On the basis of discussions with CCDP project staff, we have determined that the home is the setting that will allow for the best response rate, as many families will be reluctant to travel to an office or other center in order to be interviewed. Each visit to the home for tests and interviews will last about two and a half hours. OSRs and child testers will operate out of a home office or a small rental office and will visit each family's home twice a year during the first two years of the focus child's life, and annually thereafter.

The CCDP grantees were selected on competitive grounds, and neither the projects themselves nor the families they serve form a sample that is statistically representative of any well-defined larger group. In a strict statistical sense, then, the results of the evaluation will not be generalizable to any larger population. At the same time, the CCDP projects represent a wide range of program content within widely differing environments. Thus, they can be viewed as "replicates" of the program, offering 24 examples of how the program might function in different locations, with different populations, under different circumstances. If CCDP can be shown to be effective in a wide variety of settings, with different populations, the evaluation will present a convincing case for its implementation on a larger scale. If, on the other hand, the program is effective in certain environments, or for certain subgroups, but not for others, that would argue for modifications in the design or targeting of the program and further testing before implementing it on a larger scale.

Once enrolled in CCDP, participating families will receive social services through CCDP. However, families in the Comparison group will not receive "no treatment." Rather, they will receive whatever social services they would normally receive in the absence of CCDP. This means that a comparison of program and comparison families will yield findings about the effectiveness of

CCDP services compared to whatever services the comparison group received. This is an appropriate comparison since families would, indeed, receive services in the absence of CCDP. However, the issue of what services are received by the comparison group is not so simple. Many CCDP grantees are existing service providers who serve other clients and who have close ties to other service providers in the community. CCDP grantees provide some services directly, and coordinate many existing services for their families. Because of these facts, it is possible that program and comparison families will receive many of the same services, from the same service providers. This means that there is the possibility of substantial "contamination" of the comparison group in some projects. If a CCDP project is to be successful, it will work closely with existing service providers so that CCDP families receive existing services. It may also encourage existing service providers to raise the levels of available services, or to provide new services where none existed. To the extent that CCDP affects the services otherwise available in the community (i.e., has a community-level impact), the nature and amount of services delivered to comparison families may not represent the pre-CCDP levels of services, simply because the existence of CCDP in the community has changed the available services. Under this scenario, comparison families may receive more or better services than they would in the absence of CCDP, thereby attenuating the effectiveness of CCDP as measured by this evaluation.

On the other hand, an alternative scenario could operate in exactly the opposite fashion, to exaggerate the effectiveness of CCDP. This could occur because a large portion of CCDP services are expected to come from existing service providers. If CCDP case managers are effective advocates for their clients, it may be the case that CCDP succeeds in obtaining services for participating families at the expense of services that would otherwise be available for comparison group families. In other words, CCDP may involve taking services away from the one set of families (the comparison group) and giving them to another set of families (the program group). In situations where the amount of existing services is limited, case managers may be effective at getting CCDP families moved to the head of the line. While this may be an appropriate action for CCDP, its implication for the evaluation is that the comparison group may receive fewer services than it would in the absence of CCDP, thereby enhancing the observed effectiveness of CCDP. The severity of this type of problem for the evaluation depends on how large a portion of the locally available services are taken up by CCDP. If CCDP only takes up a small fraction of the existing services, then the deleterious effect on the comparison group will be small; however, if CCDP takes up a large portion of existing services, comparison families may well suffer a decline in service availability.

Discussion *Sheldon White*

First, let me say that it is kind of nice to be sitting here looking at a couple of ABT evaluations. My comments really draw together around two areas. I think what I hear is that there are two evaluations of the project going on simultaneously, and it is interesting to watch the way they are unfolding. What is described in the report, which is a rather good one, is a standard input/output evaluation. I really like the models, and the diagrams. I would encourage those who have not seen it to get it. It is a very well-done brief document and has a very nice description of the treatment as a set of inputs and of the outputs that are being looked for. When you look at it, you say there is random assignment, but there are going to be some problems about the control groups. It is hard to maintain a control group in a study such as this, particularly an untreated control group -- whatever that fiction means. One of the things that is gratifying to me about the document is that those problems are acknowledged; they are recognized as problems right away. The control groups, although they are randomly selected, may be treatment groups, because the treatment given to the treatment groups may diffuse through the community. One of the big problems, I feel, in almost all studies of compensatory education or of early childhood is that most control groups are not really control groups; they are really sort of loaded with treatments that are undocumented in the course of the study.

I felt that the measurement instruments that were selected represent problems -- problems that I am familiar with. I think the cognitive instruments are probably about as good as you can get, but I do not think they are particularly strong. I think that there is room for a lot of cognitive change that those instruments might not detect. I thought also that the instruments directed towards the physical well-being of the child or the condition of the home really were very vulnerable to parental report. I am very suspicious of parental report. We have evidence again and again in the developmental literature that parents really, with the best meaning in the world, do not remember or do not report correctly. But I want to set that aside, because I am really second-guessing the advisory committee. My guess is that every single problem that I am raising was raised at the advisory committee. I have been on advisory committees, and you raise all of these questions, and then in the end somebody says, "We have got to have a study" -- and so you have a study.

I guess what is intriguing to me is the second evaluation that is unfolding. Years ago, I was on the follow-through advisory committee. Follow-through was a planned variations program, and there were about 20 different forms of early elementary education, and these were being diffused to five to ten communities each. We had people traveling to these communities, and they came back and said, "You know, we have a political process happening here!" And we talked about it! It turns out that when you put a treatment into a community, something organic begins to happen. People begin to interact with one another in new ways. We found ourselves saying, "We need a journalist; we need an ethnographer or a journalist to travel to these communities and to document this process that is going on." So I was very intrigued to hear you talk about ethnographers. I think the adventures that you get into when you put a new program into place in a site really are process adventures and political adventures. We simply have managed in some crazy way

to put an input/output model on it without, at least in the past, paying sufficient attention to it. In my judgment, any time you put a new program in place in a community, you start a process in which there are the proponents of the new and the defenders of the old, and some kind of war takes place. I do not mean a vicious war; but some kind of struggle takes place, and then sooner or later something settles out. Something that may relatively little to do with the values of the program and much more to do with the way in which the community is organized. I think it is good that that is being followed, that process of putting the program in. However, I am not sure that within the term of the evaluation project this will have settled out. You have got to think four years or something like that. I think these things take a while to settle out.

The second thing that is interesting is that most of the projects have appointed case managers, or they have somebody who is like a case manager. That reminds me of a site visit I went on to a parent education project. This was a Home Start-type of program, and the premise of the program was that home visitors would be trained in early childhood education or cognitive development. They would take it to the parents who did not know it, and they would educate the parents, who would then be better parents. What we found in this project was that something much more sensible was going on. The home visitors were getting trained in the child development stuff, but then they were going to the families and finding out that these clients, who were 14-, 15-, 16-year-old mothers, had needs that were much greater than education. They needed somebody to help them. These were young mothers whose mothers were taking care of the children and bossing them around. They needed a good friend to help them get themselves together, get some education, get their children away from their mothers, or learn to cooperate with their mothers in some way. The program was sending out people who were either social workers or big sisters, and the real treatment was not in the cognitive development, it was in the kind of interpersonal negotiations that were going on between the people doing the project and the clients. So, you have two processes. You have two political processes. You have the program trying to live and survive in the new environment, and you have this process in the family which is initiated and maintained in interaction with the program.

Now there is a third process. As some of the projects have identified a lack of facilities in the community, they are turning from the clients, or at least are tempted to turn from the clients, and trying to advocate within the political system of the community to change things so that their clients have better access to health care, better access to community resources.

I think that the second evaluation is essentially an examination of a series of social and political processes set in motion by the funding. I am beginning to have a hunch that that second evaluation is at least as important, or more important, than the first evaluation. And it is interesting that we have some of the early returns on that second evaluation. What really makes programs work well are strong managers, good staff, good relationships. It may be we have to learn how to work back and forth between the two kinds of evaluations.

AUDIENCE DISCUSSION

Audience questions focused first on which treatments would be targeted for the impact evaluation. Several panelists mentioned that the focus would be on the case manager and the quality of the programs. It was pointed out that adding the process evaluation to the more traditional outcome study makes this project much richer.

The ethics of withholding "treatment" from the comparison group was an audience concern and was addressed by the panelists. They explained that all children would receive the services for which they are normally eligible and currently receiving. For example, children in Head Start might be in the same classroom as children receiving CCDP services and families receiving public assistance would continue to receive those services whether in the treatment or comparison group. However, there are clearly more families than can be served by existing intervention programs.Therefore CCDP is not depriving any family of needed assistance. There are not any "no-treatment" control groups. Even so, it was clearly an ethical dilemma for some practitioners when they saw that the extra services would be of benefit to all their families. One creative audience member suggested that a future study could explore the cost of delivery of "treatment" services. This money would then be given to the comparison group to use to purchase their own services within the community, stipulating that some accountability would be required.

Design and Implementation of the National Even Start Evaluation *Robert St. Pierre, Janet Swartz*

NANCY RHETT (Department of Education, Project Officer for Even Start): Even Start is a relatively new program, like CCDP. Even Start First Grants were made in September/October of 1989 and the evaluation started in January of 1990. These are four-year grants to local school districts. However, most of the people operating the grants are subcontracting to the school district. They are not being operated by schools. Even Start is a program for families who must qualify for the Adult Education Act, which means it is for a parent who does not have a high school diploma, or has a high school diploma and still needs basic skills training. There needs to be a child between ages 1 and 7; Even Start does not go below age 1, although there is a legislative proposal on the Hill to bring it down to zero. Following in CCDP's footsteps, the criteria for participation in Even Start are that there is a child age 1 to 7; the parent qualifies for the Adult Education Act; and they are in a Chapter One Attendance Area, which means in a poverty school. The grants are discretionary at this time. There is, however, a point in the legislation at which Even Start turns into a state-grant program, which, instead of giving out 120-odd grants to individual school districts, as we are now, they will be going to the states, which will in turn distribute the money to local schools. That amount is probably going to be reached this year: Even Start began at $14 million;

increased to $28 million; then $48 million, and has about doubled every year. It is possible that Even Start will turn into a state grant program next year, and this will affect the evaluation considerably.

Negatively, on the other hand, you cannot really say, We will stop progress while we are trying to measure this program. We started the Even Start evaluation for the same reason as CCDP. We have a very strong mandate in the legislation; it uses the words "control groups"; it uses the word "effectiveness", which is like impact; it means you have to do a strong evaluation. We have only one contract, but we are addressing many of the same issues that HHS is addressing in its two studies -- the same issues about process, the same issues about gains: learning gains, social gains, changes to the family. We are not looking so much at the changes of the community yet, although I think it is a great suggestion, and we probably will be looking at those types of issues in the future. The one thing that is interesting about Even Start is that there is no end to the Even Start evaluation. The law mandates a report in September of 1993, but it does not say that after that you do not have to evaluate. If they do not change the law, we will probably be continuing to do relatively major evaluations on this program for quite some time. In this first evaluation we have chosen to focus on some very basic questions. The main one is validation of the Even Start model. Does the Even Start model work?

The Even Start model is quite specific. Literacy training for adults, early childhood development education for children, and parenting training for adults must be provided. These do not necessarily have to be formal experiences. In some cases the adult literacy training is provided by tutors. The early childhood development may be provided through home visits, but there has to be a focus on all of these three components in each project. So we have a narrower focus for this evaluation, which I think makes it a little easier to design.

I also would like to mention that we got a number of questions this year from Congress on comparing Head Start and Even Start -- direct comparisons. How does Head Start compare to Even Start? This current evaluation will not address that question. We have told Congress it is not going to address that question, it was not designed like that. But we add that we might do it in the future. It is probably premature to start thinking of major direct comparisons, but you should know that this issue is out there before Congress. There is an interest in this question and there will probably continue to be over the next few years.

JANET SWARTZ: Even Start was authorized by the Elementary and Secondary Education Act of 1965 as amended by the Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988, Part B of Chapter 1 of Title I (P.L. 100-297). According to the law, the Even Start program is intended to "improve the educational opportunities of the Nation's children and adults by integrating early childhood education and adult education for parents into a unified program....The program shall be implemented through cooperative projects that build on existing community resources to create a new range of services" (P.L. 100-297, Sec. 1051). The Even Start program represents an innovative combination of programs for adult basic education, parent education, and early childhood education. This new Federal initiative offers promise of addressing the literacy crisis in the nation through an integrative approach to adult and early childhood education. Focusing on parents and children as a unit, Even Start projects have three interrelated goals: to help parents become full partners in the education of their children; to assist children in reaching their full potential as learners; and to provide literacy training for their parents. To be eligible for Even Start, a family must have an adult who is in need of adult basic skills training and is eligible for adult basic education programs, who has a child between the ages of 1 and 7, and who lives in a Chapter 1 attendance area.

Even Start is "family-focused," rather than parent- or child-focused. Hence, Even Start projects must provide participating families with an integrated program of early childhood education, adult basic skills training, and parenting training. The theory is that families need to receive all of these services, not just one or two, in order to effect lasting change and improve children's school success. The services to be provided to children and their parents are described in the Even Start legislation and regulations, and have been elaborated upon by the Even Start projects. Services can be grouped into three areas: core services, support services, and special events. Four "core" Even Start services are outlined in the legislation: adult education -- regularly scheduled core programming for adults that includes ABE, ASE, ESL, and GED preparation, designed to improve basic educational skills, particularly literacy skills; adult/child activities -- regularly scheduled core programming, preferably in the home, for adults and children together, such as reading together, language activities, and instructional games; parent education/child development services -- regularly scheduled core programming for adults designed to enhance parent-child relationships and help parents understand and support their child's growth and development; and early childhood education services -- regularly scheduled core programming for children alone, designed to enhance development and prepare children for success in school.

In addition to these four core services, Even Start projects typically provide a range of "support" services which are designed to enable the provision of core services to families. Examples of support services are transportation, custodial child care, health care, meals, nutrition assistance, mental health referral, referrals for employment, advocacy assistance with governmental agencies, counseling, child protective services, referrals for screening or treatment for chemical dependency, referrals for services to battered women, special care for a handicapped family member, or translators. Further, Even Start projects often provide "special events" for participants. These may be one-time events, such as a pot-luck supper, or may include occasional activities or demonstrations on subjects of interest to the participating families.

To achieve its goals, the Even Start program provides four-year discretionary grants for family literacy projects. Seventy-six demonstration grants totaling $14.5 million were awarded in fiscal year 1989. Seventy-three of the grants, totaling $14.1 million, were

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made to projects in Chapter 1 elementary school attendance areas; three grants totaling $4 million were made to state departments of education serving migrant populations. Grants ranging from $62,000 to over $500,000 were awarded to small rural and large urban school districts in 44 states and the District of Columbia. Program funding grew in fiscal year 1990, to a total of $24 million. Forty-six new projects were funded in fiscal year 1990, for a total of 122 projects. It is expected that the Even Start program will expand again in fiscal year 1991, with funding reaching the level of $48 million, and will become a state-run program in fiscal year 1992, when funding tops $50 million.

Section 1058 of the Even Start legislation requires an independent national evaluation of the projects funded under Even Start. This section reads as follows: "The Secretary shall provide for the annual independent evaluation of programs under this part to determine their effectiveness in providing: services to special populations; adult education services; parent training; home-based programs involving parents and children; coordination with related programs; and training of related personnel in appropriate skill areas. Each evaluation shall be conducted by individuals not directly involved in the administration of the program or project operated under this part. Such independent evaluators and the program administrators shall jointly develop evaluation criteria which provide for appropriate analysis of the factors under subsection (a). When possible, each evaluation shall include comparisons with appropriate control groups. In order to determine a program's effectiveness in achieving its stated goals, each evaluation shall contain objective measures of such goals and, whenever feasible, shall obtain the specific views of program participants about such programs. The Secretary shall prepare and submit to the Congress a review and summary of the results of such evaluations not later than September 30, 1993. The annual evaluations shall be submitted to the National Diffusion Network for consideration for possible dissemination."

In January 1990, the Office of Planning, Budget, and Evaluation in the U.S. Department of Education (DOE) awarded a contract to Abt Associates Inc. (AAI), with a subcontract to RMC Research Corporation, for an evaluation of the Even Start program. The evaluation, which runs from 1990 through 1993, calls for the design and implementation of a four-part evaluation, and includes annual reports to be delivered to the DOE as well as a final report to Congress. In addition, the Department of Education has arranged for the active participation of each Even Start grantee in the evaluation. A line item for evaluation was added to each grantee's budget ($5,000 for each project in a rural area and $10,000 for each project in an urban area). The Even Start grantees were asked to use these funds to hire a local project evaluator whose responsibility is to help with administration and collection of data required by the national evaluation and to help conduct other local evaluation activities. Thus, the evaluation is a collaborative effort involving staff at the DOE who oversee the entire study; staff at Abt Associates Inc. and RMC Research Corporation who are responsible for study design, some of the data collection, and all analysis and reporting; and staff from each Even Start grantee who are trained by AAI and RMC to conduct a large part of the data collection.

A comprehensive set of research questions has been developed to guide the evaluation. The list will evolve over time, just as the study itself will evolve. Some questions may fade in importance, and new ones may be generated as more is learned about how projects are implemented. For now, the research questions are organized into four major sets of questions and subquestions: 1) What are the characteristics of Even Start participants? (Who is in the program?); 2) How are Even Start projects implemented and what services do they provide? (What does the program look like?); 3) What Even Start services are received by participating families? (What do families receive by participating?); 4)What are the effects of Even Start projects?

In order to address these questions, a four-part evaluation has been planned. The four components are: the National Evaluation Information System (NEIS) for all Even Start grantees; an in-depth study (IDS) of ten projects; other local evaluation studies as desired by individual projects; local application for the Department of Education's Program Effectiveness Panel (PEP) and National Diffusion Network (NDN) qualification.

National Evaluation Information System (NEIS): The NEIS is designed to collect a common set of data from each Even Start project and from all Even Start participants. In addition to being used for the national evaluation, each project's NEIS data will be reported back to the project as a profile of characteristics that can be accessed for local uses. A profile that summarizes the characteristics of Even Start projects nationally will also be provided to projects. The purpose of the NEIS is to provide ongoing descriptive information on the Even Start program, including the types of projects that have been funded, the services that they provide, the collaborative efforts they have undertaken, and the obstacles that exist to program implementation. The NEIS is also designed to provide detailed information about the families that participate in Even Start, the services they receive, and the progress they make in areas such as adult basic skills, children's school readiness and literacy-related behaviors, and parent-child interactions. Data from the NEIS will be used to make assessments at the national level. That is, data will be aggregated across all projects in order to describe the Even Start program and its outcomes as a whole. The data will also be used to categorize programs into different subgroups for further analysis. In particular, the data will be used to identify and analyze fully implemented projects that have varying degrees of service intensity and to describe and analyze different Even Start "models," that is, groups or clusters of projects that share certain key characteristics.

The In-Depth Study: In contrast to the NEIS, which is designed to provide a common set of data on all Even Start grantees and participants, the IDS is designed to provide detailed data on Even Start by studying a smaller set of grantees and a subset of their participants. Projects selected for the IDS are intended to represent full implementation of the Even Start program. The issues addressed by the IDS include: the effects of Even Start on children's school readiness and on the basic skills and educational

attainment of adults; the effects of Even Start on selected antecedents of school readiness and literacy, such as the parent's personal skills, parenting behaviors, community involvement, and literacy behaviors; and the ways in which promising Even Start projects are implemented, including a description of the activities undertaken by those projects, the nature of the planned and actual collaborative activities, the costs of the project, as well as other descriptive information. Data for the IDS include all of the data collected on Even Start participants through the NEIS (i.e., child and adult test scores as well as the nature and amount of services received). The IDS augments this information with additional data collected through a parent interview with program participants, which covers areas such as the home environment, the parent's personal skills, parenting behaviors, literacy behaviors, and community involvement through recall measures of services received, parental perceptions of the program, and observation of a parent/child reading task.

The IDS research design includes several key elements that are only summarized here. First, the IDS is being implemented in 10 projects selected from the first cohort of 73 Even Start grantees that were funded in fiscal year 1989. Second, families are being randomly assigned to Even Start or to a control group in as many of the 10 projects as possible. Third, where random assignment is not possible, quasi-experiments are being implemented. Fourth, the IDS involves about 20 Even Start families and (where possible) 20 control group families in each of the 10 projects. Fifth, the IDS sample focuses on families with 3- or 4-year-olds. Sixth, families are compensated for the time they contribute to the evaluation. Seventh, assignment to groups will be done in the summer/fall of 1991, pre-test data on families will be collected in the fall of 1991, and two post-tests will be administered -- in the spring of 1992 and the spring of 1993. Eighth, measurement includes case studies of each IDS project in addition to a battery of measures to be administered to children and parents. Finally, a longitudinal follow-up will be designed in order to follow children into the public schools.

Other Local Evaluations: After they have met requirements for the NEIS and the IDS, grantees have the option of conducting other local evaluation activities that they think are necessary or appropriate. Local evaluation activities can be funded through the project's evaluation budget, but must be approved by the DOE, typically through the continuation grant.

Local Application For PEP/NDN Qualification: In Section 1058(c) of the Even Start legislation, Congress stipulated that Even Start projects should submit evidence of their effectiveness for approval by the Department of Education's Program Effectiveness Panel (PEP). A project that is approved by the PEP is entered into the National Diffusion Network (NDN). The project may then apply for additional dissemination funds as a developer/demonstrator project. In order to qualify for the National Diffusion Network (NDN), a project must provide evidence of its effectiveness and replicability. The DOE has established a two-step process to review the evidence. The local project's submission is first reviewed by the program office which provided the grant or which administers programs similar to the one being proposed for dissemination. Once cleared by the program office, the submission is then sent to the DOE's Program Effectiveness Panel (PEP) for review and approval. PEP is a panel of technical experts in evaluation methodology. If approved by PEP, the project enters the National Diffusion Network.

Discussion *Sheldon White*

I had somewhat mixed reactions to this evaluation. I felt again it was an extremely well put together evaluation plan, including nice analysis of inputs and outputs and so on. Since what is new about Even Start is the emphasis on adult literacy superimposed upon early childhood education and services to the families, I would have given finite evaluation resources. I would have invested much more in looking at what was happening to the parents and what was happening in the interchange between the parents and the children. One issue is whether the parents become literate, and you do have to worry about the state of the art of literacy tests, but I would really be concerned with the next step beyond that. Do the parents get somewhere in terms of school achievement? (Whatever that means.) Do they get somewhere in the sense of picking up an educational credential? Is there conceivably an occupational shift? Is there something that happens that really changes the person's situation in life? Do the parents who have been so trained show more knowledge about schools? Do they interact with the schools more? Are they less timid in the face of the schools? Do they go in there and fight for their children when the children are given a bad placement?

I am one of those people who suspects that a great deal of the Weikart outcomes are really mediated by parents who have been mobilized by the program. So I would see that the evaluation of Even Start would be a golden opportunity to pursue the question of what happens when you empower parents. I am not saying that literacy training is a giant dose of power, but you do have an opportunity to look much more at parents. I would be interested in whether they are reading to their children, if they are teaching their children, or whether they are interacting with the children at home. That was one of the things that I missed a little bit in the evaluation design. I think more money should be spent on the admittedly time-consuming and expensive process of getting into the homes and finding out what is happening in the interchanges with the children.

I also think that the assessment is a little too short-term. If you are going to train the parents and the parents are going to change the relationships with the children, then I think you need to be in there longer. Furthermore, I believe that the role of families changes as children get older. When children are little, what parents offer is love and security and affection and companionship, and of course that is necessary at every age. But when children get older, parents become managers; they become advocates, people who scout the schools for the children and negotiate with the Boy Scouts and the Girl Scouts. I feel that the parents need to be followed to the point where they have a chance to be proactive for their children in school environments. I also would suspect that if

the parents are being empowered, then the siblings ought to benefit from the treatment. As far as I remember, there is no looking at siblings, and yet I would think that younger siblings might be as much, or more, benefited than the target children in the study.

I liked a great deal the fact that there were efforts being made to describe the models, to describe the 10 sites. I feel that we overlook the fact that a model, a program, a project that is well done is as much of an outcome of the funding as its effects on children. And I like the fact that there is a system in place so that successful programs or programs that qualify have to be submitted to the program effectiveness panel. I think all of that is very nice, because too often we simply regard the adventures and the struggles that people have to create projects as simply interludes on the way to the real stuff which happens with the children. The invention of a program and the ability to disseminate it is, I think, a contribution to our work with children. I do not know how you decide what a coherent model is. One of the conditions for the 10 sites, I gather, is that they have a coherent model, and I think what coherent means is describable; has a chance of being communicated to someone else. But I am not sure about that.

Once again, I had problems in the design where parent interviews are being used, and I will communicate once again that I do not trust parents. I like parents, but I do not trust them when they report what they do. One thing I liked a great deal was the use of Even Start grantee staff to collect data. I think that is worth a great deal of effort, because that guarantees, or at least promotes, the possibility that there will be some kind of movement of the everyday wisdom of the staff into the formal design of the study. I think that is done too little. I think we have to get away from the outside auditor approach and into some kind of approach of working with project staff. I guess I would have to say that my biggest concern is the one I raised first about the parents. We need more data about parents.

AUDIENCE DISCUSSION

In response to the discussant's concern about the lack of data being collected on parents and parent-child interaction, panelists pointed out that imbedded in both studies were some parent measures. In all cases, however, these were self-report. The issue of reliability of this type of measure for assessing parent-child relationships was raised. A project officer pointed out that was why observations were added to the Even Start protocol. She also pointed out that data on attitude changes over time assessed through self-report are valuable as is anecdotal information. A question was raised asking if there were any plans to compare the impact of Even Start to Head Start and/or to link the two programs nationally. Although interest has been expressed, this line of research seems to be several years down the road, according to a member of the panel. While addressing comparisons, a point was made that Even Start's focus is on literacy and is a mandated part of the program; whereas, in CCDP, literacy services may or may not be a part of the program. An important issue was raised about cost-effectiveness, looking at the dollars spent per family by each program. It appears that CCDP costs four times as much per family as Even Start; however, closer scrutiny reveals that much of Even Start's services are provided by other Federally-funded programs such as Head Start and the JOBS program. A comment was made that CCDP also receives in-kind services, making an estimate of per family cost very difficult. Another audience concern centered on the validity of an outcome evaluation of the Even Start program. Can its effects be separated from the effects of the other services provided to the family?

Roundtable 211 AN INTERACTIVE APPROACH TO DEVELOPMENT

Chair: **Milton Shore**; *Discussant:* **Robert Hardy**

Fostering Development in Early Childhood: An Interactive Approach *Ina C. Uzgiris*

We start our discussion with an assumption shared by many at this conference -- that research-based knowledge of development in early childhood and knowledge gained from educational practice aimed at fostering the well-being and competence of young children is potentially complementary and mutually enriching. We will be presenting a perspective on human development that we call "an interactive approach," because we wish to convey the importance of looking at mutual influences between participants as they engage in various activities. The perspective also emphasizes the continuous interplay of personal inclinations and available opportunities in the forming of human activities in culturally defined contexts. We will illustrate the application of this perspective to three different topics pertinent to understanding young children's functioning. Although our vantage point is research-based, we think our perspective is also applicable to everyday settings. Our expectation is that an interactive analysis of ongoing activities will provide insights into their dynamics that will prove useful for fostering as well as for understanding children's development.

We refer to our perspective as an interactive approach because we wish to emphasize the mutuality of the linkages between the different factors that contribute to the structuring of ongoing activities. By highlighting the centrality of the process of interaction, we wish to convey the idea that activities take form as contributions from the context, the participants, and their directedness get linked together and, in turn, as a consequence of participation, influence each of the contributors (Użgiris, 1989). This feedback loop between the experience of the participants and their subsequent understanding of that activity is important to this approach.

To make our notion of interaction clearer, the activity of conversation can serve as a model. A conversation takes shape over time, as each participant contributes to the interchange. The individual contributions made by those participating depend on a whole host of variables: ability to speak, knowledge of the topic, interest in the conversation, and so on. No less, the contributions of each participant depend on the contributions of the others as well as on the culturally defined context for the conversation. We all speak of conversations getting side-tracked, going well, or being difficult. On reflection, we recognize that, for example, a child's attempt to be included in a conversation can change its direction as well as a sophisticated maneuver by an adult wishing to achieve a specific goal. The point is that a conversation is an activity structured in a particular context by the contributions of all the participants -- it takes place over time. Moreover, each participant takes away something relevant to holding conversations from having participated in particular ones. Similarly with other activities. There is mutuality in the fashioning of interactions, and their structure, once formed, is available to all participants, assimilated and to be used in future activities.

Although the importance of interpersonal interactions in children's experience is beginning to be recognized (e.g., Bornstein & Bruner, 1989), studies still focus on the outcomes of interaction more than on the interaction process itself. It is important to examine the interplay of factors as they fashion distinct modes of interpersonal interaction, for it is the modes of interpersonal interaction that bridge sociocultural conditions and children's attainment of specific orientations or competencies.

We need to examine the notion of interaction more closely. Actually, the term "interaction" appears rather frequently in titles of research reports. Studies of children's interactions with their parents, siblings, peers, and teachers have become commonplace. By focusing on one of the participants, however, many studies consider the flow of actions from only that one participant -- the bidirectionality of interaction is overlooked. That is, if the focus is on the child, the contributions of caregivers or peers come to be seen as aspects of the context, and we get studies, for example, of how children talk, play, or solve problems when they are engaged with a helpful caregiver. The activity taking place is seen as constructed by the child in that particular situation. On the other hand, if the focus is on the caregiver, the characteristics of the child are seen as defining the situation, and we get studies of, for example, parental play with boys versus girls, or parental talk to first-borns versus later-borns. In each case, the activity is seen as being that of one participant in a specific situation that also includes the other. The mutuality of influences is underemphasized.

By highlighting interactions, we wish to shift the focus to activities, and to emphasize the mutual influence of the participants on each other. For instance, a child's play is affected by the behavior of the caregiver, but the caregiver's behavior is also affected by how the child plays. Thus, the play activity as interaction is mutually constructed by them in a culturally defined context. How a child is perceived and what a child does influences how the adult behaves. How the adult acts and what sense the adult's actions make to the child influences what the child does. There is bidirectional influence.

By highlighting ongoing interactions, we also wish to emphasize the simultaneity of mutual influences. When speaking of mutual influences, many studies recognize the impact of participants on each other over time. For example, if a child caries out tasks better when repeatedly given detailed directions, it is assumed that a parent may come to adopt a directive style when interacting with this child. Similarly, if a child is given detailed directions for most tasks, with time, the child is assumed to come to expect to be told what to do. Our inclination to search for causal directedness in correlational data reveals our tendency to assume unidirectional effects. In contrast, we wish to draw attention to the simultaneous impact of one participant on the other in the mutual construction of activities. Over time, both participants change as a result of mutual influence.

The interplay of expectations and evaluations characterizing ongoing interaction suggests that resultant activities are mutual constructions of the participants. Saying this does not deny that one participant may have more knowledge or more power and, therefore, may contribute more to the definition of a situation. Nevertheless, the actions of each participant are shaped by and also shape those of the other. The joint activity belongs to all participants.

Acceptance of this perspective has far-reaching implications. To be concrete, it means that a child's competencies can only be described in relation to a partner and a context. It means that assessment endeavors need to consider not only the child being assessed, but also who is doing the assessment and in what context. Similarly, the activities of a caregiver or a teacher can only be described in relation to a particular child and a particular context. And this is more than a call not to overgeneralize. It means that children as well as adults have competencies and difficulties not by themselves, in a general kind of way, but in the context of activities that they carry out with specific others. It is a call for highlighting ongoing interactions and attempting to understand their dynamics and emerging structures.

Detailed analyses of mother-infant interaction sequences demonstrate the mutuality of interaction regulation even among partners of very different competencies (e.g., Tronick, 1982). Analyses of problem-solving interactions among children and caregivers also reveal joint contribution by participants to the course of the activity (e.g., Rogoff, 1990). We need to become more cognizant of the patterning of interactions as an organization of actions with a time course. Only this level of analysis permits us to set aside stereotypes and to begin to understand the interactive nature of human activities. So, one of our messages is the urging of emphasis on on-going activities, with a recognition of mutual influences in their construction by all participants.

In addition, participation in various kinds of interactions allows all who are involved to learn the organization of the activities. Although the organization is the outcome of joint efforts, it becomes available to each participant. It becomes a schema for carrying on activities in specific culturally defined situations, ranging from such simple activities as how to proceed in "playing house" to how to proceed when one needs information in a classroom. These schema pertain not to specific content knowledge or even conventions of

social interaction, but to a sequential pattern of expectations with respect to the course of specific activities. Because these schema are learned during interaction with others in culturally specified contexts, we can expect them to vary across contexts and cultural groups. A focus on ongoing interactions might help us to be more sensitive to mismatches that may occur during transitions from one situational context to another and while changing interaction partners.

A specific concern with interactions can also alert us to a facet of learning that is frequently underplayed. Learning is most frequently considered in terms of content; for example, what a child knows with respect to numbers, types of transportation, or good hygiene. Sometimes, learning is considered in terms of efficacy, that is, how quickly, straightforwardly, and smoothly a child can accomplish what she or he sets out to accomplish. Less often, learning is considered in terms of the patterning of activities that is inherent in carrying out specific tasks.

For example, the frequent preschool activity of learning to paint involves not only the production of certain shapes and the use of crayons, pencils, or watercolors, but also the selection of a time and place, the announcement of the activity, the gathering of the necessary materials, the handling of suggestions from others, the dealing with praise and criticism, and so forth. It is these patterns for organizing activities that are learned in interaction with others and modified as a result of mutual influences. Being to a large extent implicit, however, the patterns held by different participants may fail to mesh and create disruptions in interaction, without anyone clearly grasping the nature of the problem. This may occur when the participants come from different cultural backgrounds or different situational contexts, specifically, when teachers and students do not share the same background or when the children move from family to preschool and from preschool to a school context. It may also occur when adults move to work in a different setting or with a different population of children. An interactive approach may help to highlight the importance of these implicit schema as well as the mutual contribution by all participants to their more or less successful realization in ongoing activities.

In sum, an interactive approach to child development underlines the centrality of joint contributions to the construction of activities in which we engage and suggests that a very special learning takes place during such activities; this learning is an often implicit adoption of a schema for carrying on those activities. A fruitful direction for Head Start education may come from greater consciousness of the interactional aspects of activities comprising any educational program. We will attempt to illustrate the application of this interactive approach to concrete topics in the next three presentations.

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Play as an Interpersonal Event *Maria Cristina Ramirez*

In thinking about new directions for programs, we need to consider the cultural diversity of children and the modes of interaction into which they have been socialized. As you know, play is a very common and enjoyable activity for children. It is an activity through which children explore and learn about various aspects of their world, as well as an activity in which they learn to interact with peers and adults. I want to focus on how, through play, children may learn ways of interacting that are appropriate for members of their community.

I chose to focus on the interaction between parents and children because, as we know by personal experiences and through the research in other cultures, parents interact differently with their children depending on the cultural conception of the status of the relationship and on the cultural values that are seen as important to be fostered in the interaction (i.e., Field, Sostek, Vietze, & Leiderman, 1981; LeVine, Miller, & Maxwell West, 1988; Ochs & Schieffelin, 1984). To take an example, Ochs (1988; Ochs & Schieffelin, 1984) has shown that middle-class Anglo caregivers expand children's utterances because of the intentionality that they assume on the child's part to communicate emotional or physical states. Thus, Anglo-American caregivers socialize children into negotiating the meaning of utterances. In contrast, Samoan caregivers do not expand children's utterances because they do not share these cultural beliefs and values. Analysis of parent-child interaction in play also reveals that important cultural values about how relationships are to be carried out have a role in the play interaction.

I will illustrate these differences by comparing parent-child interaction in play in the United States with the same kind of interaction in Colombia. Members of each of these cultures seem to have different conceptions of their role and status in the relationship between parent and child. In at least the middle-class modal American culture, "egalitarian" or symmetrical kinds of relationships are valued (Ochs & Schieffelin, 1984). In addition, relationships are more goal-oriented. In Colombia, a Spanish-speaking culture with a more extended family structure, hierarchical relationships are valued, and they seem to be less goal oriented (Gutierrez de Pineda, 1975). Such differences in values and goals are reflected in the form and patterning of interactions during parent-child play. I will discuss the results of this study in terms of their implications for educational practices that would foster children's development.

I videotaped 16 families in each culture spending time as they normally do when they are together at home and have some free time to interact or play. The focal child was a toddler between 18 and 20 months of age. Preliminary analysis suggests that each cultural group has different understandings of how to play and of the functions that play serves.

In the American middle-class families, parents tended to follow the toddlers' lead in terms of their interest for particular activities. Toddlers were given the option of participating in specific activities (suggested by one of the parents or a sibling), or parents joined the activity in which the toddler was engaged. The activities in which parents and children engaged were more goal oriented (i.e., reading a book). Parents tended to structure the activity in which they engaged with the toddler either by emphasizing the didactic aspects of the activity or by introducing the child into the "rules" of the game and following its sequence. For example, when playing basketball, family members formed two teams, and one parent helped the toddler score a basket by lifting him or her so as to help the child reach the basket. They also guided the child in terms of who to throw the ball to. A good number of the activities in which parents engaged in play with the toddler were toy-mediated.

In contrast, the Colombian middle-class parents tended to set the stage for the interaction. Fathers played a dominant role in determining the activity for interaction. Toddlers were rarely asked what they wanted to play but rather an activity was chosen for the child, and one or both parents involved the child in the interaction. The activity was less structured, however, in that the activities were chosen more as a means of interacting than for a particular goal in themselves. For example, dancing was a very popular activity for the Colombian families. Their focus, however, was on enjoying the music and each other, rather than on getting the child to dance in ways that are in style in the culture. The major focus of the activity is to have fun. Laughter becomes an important part of the interaction, to the point that parents tended to introduce many activities of short duration with the expectation of creating a reaction from the child. As such, they played more the role of entertainers. Didactic kind of activities and toy-mediated play did not occupy as much time of the interaction for Colombian families. However, it is important to note that even though the focus was not didactic, children were being introduced into important social routines that are important in the culture (i.e., talking to a family member over the phone).

These differences suggest that different cultural backgrounds influence play practices, children's expectations, and the skills fostered in the play context. Children in each cultural group may learn to have different expectations about the role of the adult and their own role when interacting with others. American middle-class families were emphasizing values of self-reliance, placing the responsibility on the child for choosing the activity and leading the game. The focus is on the child's own enjoyment of the activity. In addition, parents' view of play seems to be that of an activity through which children can focus and learn about their environment. They also seem to be more interested in joining with the child in goal-oriented activities.

The Colombian families tended to place the responsibility on the adults as the more "knowledgeable" and capable of making the decision. The child bears the responsibility of doing the action and/or performing for his/her audience. The focus is on the group's enjoyment of the activity. The Colombian parents seem to view play as an activity that is unpredictable and has no goals. Play seems to be viewed as a social event, and as such, it fits well into the cultural pattern of avoiding structure in activities that are social and informal.

The fact that I videotaped the families is also an important context of influence to discuss. Families saw me as a respected member of the culture who is knowledgeable of child development. As such, they treated my coming into their home as a social event, an opportunity to show the multiple activities into which their toddler engages. Thus, all the family members focused on the toddler and directed their effort towards showing what he or she did. As can be seen, children are introduced through play into ways of interaction that are appropriate for the Colombian culture. As such, the child's view of play with others will differ from that described for the American middle-class families.

Several implications for early intervention programs can be discussed. One refers to the model that is being used to intervene in the home-based program. If we consider that the American-middle class model of play is not the typical model for members of other cultures, then intervening with such a model already represents a clash of cultures between the educator and the family. In such interventions, it may be important to distinguish first whether there is a positive quality to the interaction, even though the play activity may not correspond to our expectations of play. By becoming aware of this difference, we may avoid imposing a deficit model on families who may know how to play, but whose style of play differs from that being described in the literature (Bruner & Sherwood, 1976; Garvey, 1977).

At the same time, these intervention programs tend to focus on using play as an activity through which children may learn about various content areas. Since such a view of play as learning may not be shared by members of other cultures, it is important for the educator to confront such differences with the families so they can become more aware, and be able to prepare their children for their transition into a center-based program. Children may need to learn different styles of interactions and the contexts in which those interactions are appropriate. Such process can be facilitated if both parents and educators are aware that such differences exist and that each may foster different skills important for different contexts. It is also possible that the way the educator frames the activity for the parents, whether as play, sharing, or teaching, will elicit different responses from the parents.

In discussing children's transition into a center-based program, we need to focus more on the interaction between child and teacher. Such interactions can go well or become problematic, depending on what each member brings as an understanding on how to relate to the other. We can ask ourselves about their different expectations. Is the teacher expecting the child to ask for help when needed? How does the teacher interpret the child's behavior when the child does not ask any questions? Children coming from another culture may expect that they will be asked a question, and their role is to respond to that question. As such, they may remain quiet if not asked any questions. From the child's point of view, this is the appropriate way of relating. From the teacher's point of view,

this is seen as passive behavior. Thus, the interaction between teacher and child will differ as a result of these different expectations. It may be that the teacher will find him/herself being more active in asking questions or offering help than will be customary for American middle-class children. Or it may be that the child will become confused and thus will withdraw if receiving the message from the teacher that it is his/her responsibility to speak up. Children may also be confused in terms of their understanding of boundaries in the interaction, thinking that the adult is not setting limits -- a misunderstanding which may lead into acting-out behavior. Thus, children's transition into a more educational setting demands that they learn not only about various content areas but also about specific ways of relating appropriate for the new setting. The success of their transition may depend on how the teacher-child dyad deals with these differences.

These findings suggest that an apparently "universal" activity such as play may look different when the participants come from different cultural backgrounds. Furthermore, an interactive approach may reveal values and goals in play not evident if we focused on the behaviors of the players separately. By learning about the cultural context in which play experiences are embedded, we can gain some insight into children's relationships with elders and peers. In addition, play interactions can be used to introduce children into modes of relating that will serve the child well in other cultural settings, such as those that occur later on in school.

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Structuring of Interpersonal Interactions: Teenage Mothers and Their Children *Catherine Raeff*

Adolescent mothers and their children interact within a broader social context that will influence the organization and structure of their interchanges. An essential feature of the wider American social context involves its norms and standards for optimal parenting, as well as its norms for appropriate adolescent behavior. Based on these norms, there is a general consensus that adolescent mothers and their children are at risk for poor developmental outcomes and pose problems for American society at large (e.g., Brooks-Gunn & Furstenberg, Jr., 1986; Furstenberg, Jr., Brooks-Gunn, & Chase-Lansdale, 1989). During at least the last 20 years much attention has been focused on adolescent motherhood, mostly based on this consensus and on these norms.

The research upon which these conclusions are based, however, has rarely taken an interactive perspective on adolescent mothers and their children that would treat their activities in terms of the interpersonal connections established by the mother and child. Instead, most studies have consisted of analyses of individual behavior (either that of mothers or of children) in various interpersonal situations (e.g., Brooks-Gunn & Furstenberg, Jr., 1986; Culp, Appelbaum, Osofsky, & Levy, 1988; Dunst, Vance, & Cooper, 1986; Elster, McAnarney, & Lamb, 1983; Landerholm, 1984; Osofsky, Culp, & Ware, 1988). From an interactive perspective, however, the activities of each participant in a mother-child dyad cannot be categorized in isolation from one another, or from the ongoing contextual features of their interchanges.

Thus, I would suggest that rather than lumping them all together into one doomed category, it is necessary for early childhood care providers to be sensitive to a wide range of capacities that may be expressed in adolescent mother-child interaction patterns. To get at these differing capacities, I will focus on adolescent identity formation issues as critical contextual features of adolescent mother-child interactions. And I will briefly characterize differences between adolescent mother-child dyads in terms of the overall organization of their interchanges.

Clearly, adolescence is not viewed as the life phase during which one is expected to assume the responsibilities of childrearing and socialization of the next generation. Instead, adolescence is viewed as a transitional period between childhood and adulthood, during which adolescents may experiment with and evaluate various adult roles without committing to or assuming the full responsibilities associated with any of these roles. In addition, based on the work of Erik Erikson (1968), adolescence is viewed as a period of relative freedom marked by the uncertainty of self-conceptualization in relation to others. During this transitional period, the extent of commitments to different roles, and of having a sense of who they are in terms of self-conceptualization, will vary widely among adolescents (e.g., Marcia, 1966).

A consideration of these aspects of the adolescent period will enable us to better understand the different contexts in which both the adolescent mother and her child construct their interaction patterns. Adolescent mothers' varying identity-formation struggles and their struggles with the responsibilities of motherhood will serve as a backdrop for the interplay between child variables and maternal variables. And so, it is necessary to focus on these issues; namely, self-conceptualization and commitment to the role of motherhood, with which adolescent mothers are themselves struggling. It is the interplay between these two features of adolescent motherhood that will serve, in great part, to underlie and contextualize adolescent mother-child interactions. Thus, a young mother

who does not integrate a perception of herself as a mother into her self-conceptualization may be expected to interact differently with her child than one who identifies with and embraces the role of motherhood.

As part of a pilot research project, I conducted semi-structured interviews with adolescent mothers in an effort to discern how these identity issues are conceptualized and how they contribute to the organization and structure of adolescent mother-child interactions. These young mothers all attend a public school that provides an on-site day care program for their children. While these adolescent mothers and their children may be privileged in many ways, due to participating in such a program, they are of interest to other early childhood care programs who seek to provide similar services. The interviews covered a wide range of topics concerning self-conceptualization and the baby's place in these young mothers' lives. Of particular interest for us today are their responses to questions concerning what being a parent means to them and how they have integrated this role into their self-conceptualizations. Responses to these questions reveal a range of self-conceptualization struggles, which may be categorized along a continuum between a lack of integration and commitment to the role of motherhood, on the one hand, and a conceptualization of oneself with a strong integration and commitment to the role of motherhood, on the other hand. In between these extremes fall varying degrees of struggling to integrate the role of motherhood into the construction of a personal identity. To illustrate the range of their commitments to motherhood, I will present some quotations from the interviews. All names of mothers and babies have been changed.

As an example of an adolescent mother who appears to be committed to her role as a mother is Rebecca. She is a 16-year-old mother of a 14-month-old boy. She says: "Now I'm responsible for someone else more than myself. I can handle that fine, but that wasn't on my mind before I had a baby. I was just, it was just me...Before, I could just get up and go...now I have to get the baby ready and stuff...I have to always make sure I'm in good spirits. Before, if something was bothering me I wouldn't deal with it, I'd keep it inside. Now, if there's someone that's bothering me or something that's causing me a lot of stress, I'll just stay away from them or confront them to get it out in the open. So that I can be in a better mood or whatnot to take care of my son." In this case, it appears that Rebecca readily conceptualizes herself in reference to her son, and seems to put her son's interests first.

As an example of an adolescent mother who does not appear to be committed to motherhood consider Gladys. She is a 16-year-old mother of an 11-month-old girl. She says; "It's like I'm always stuck in the house. It's not me, it's not Gladys anymore. I always look at myself in the mirror and I wonder, who are you? Why did you ever do this to yourself? There's like another person in the mirror talkin' to me...When I had it [her baby] I knew that it wasn't good. When I seen that baby cryin' for the first time I said, oh my god, I'm gonna go through this, oh my god, for about five years. 'Cause they don't stop cryin' 'til they're five and know how to calm down...I never had so much responsibility in my life. I used to sleep all night and all day. Now I have to get up real early in the morning just to take care of somebody that I never thought I would do that...you're stuck with a kid." Here, Gladys appears to be basically focused on herself and virtually resentful of her daughter's intrusion in her life.

As an example of an adolescent mother who is struggling with integrating the role of motherhood into her personal identity, consider Kathleen, a 17-year-old mother of 11-month-old twin girls who says; "Sometimes I do [feel like an adult], sometimes I don't...At first I didn't even think of myself as a parent. It was just almost like babysittin'. Full-time babysittin', that's what it was like. When I...think about myself as a mother, I can't imagine it. I still don't think of myself as a mother. Because I picture a mother as some older person that's married and stays home...I just don't think of myself that way. I mean, I'm their mother and everything, but it's weird. I don't think of myself as a parent. It's too weird for me to think about it. I still can't even picture myself as being a mother. I mean I take care of them and everything like that, but I just don't think of myself as a mother...'Cause I seem like everybody else. I go to school, and I go out, and I'm with my friends that are all the same age. And, you know, we're still basically kind of the same...It's not that I don't feel like a mother, because I do. I stay home and clean and do motherly things, but it's hard for my mind to comprehend that...I'm a split personality."

Based on this statement, Kathleen appears to conceive of herself as a mother in an inconsistent manner. She does not seem sure of where motherhood fits into her life and activities, and her statement reflects a struggle with respect to integrating the role of motherhood into her self-conceptions. When I asked her what, more precisely, does a parent do, or what does being a parent mean to her, she could not specify beyond stating: "I don't know. It means I have to be different. I don't know. It means I have to be responsible. I have different responsibilities than other people my age because I am a parent." This statement is interesting in that even when she is trying to discuss what motherhood means to her, Kathleen's point of reference is with her peers, and herself in comparison to them, as opposed to herself in relation to her children.

Given that adolescent mothers' attitudes towards motherhood will vary, reflecting the uncertainty of identity formation, and given that such attitudes will be constitutive of adolescent mother-child interaction patterns, it is necessary to consider actual episodes of interaction with these contextual features in mind. I videotaped adolescent mothers and their children playing with a set of nesting cups. I told the mothers to play with their children for about five minutes as they usually play together. Since Rebecca and Gladys express such different views regarding motherhood, it seemed reasonable to suspect that their interaction patterns with their children would differ. Even in very general terms, differences between the two dyads are quite obvious. Rebecca and Frederick are attentive to one another and focused on constructing common goals. In addition, they are moving along at the same pace; in synchrony with one another. Rebecca is quite aware of her son's movements and allows him freedom and initiative in playing with the cups and in structuring their activities. Frederick is also quite aware of his mother, as he accepts her offers and looks to her when it is her turn to respond. In effect, their interaction patterns represent the establishment of mutuality and cooperation.

Then we have Gladys (whom I just quoted as lacking commitment to motherhood) and 11-month-old Sarah. Their interaction patterns appear rather confused, basically because the two are operating at different paces and are rarely focused on constructing a mutual goal. Gladys (the mother) is intent on exploring and playing with the nesting cups on her own, allowing Sarah little opportunity to play with the cups. In addition, there is little sign of cooperation towards a mutual goal, and the two are not mutually attentive to one another. Instead, Gladys takes note of Sarah now and then, especially when Sarah does something drastic. For example, Gladys interrupts her own play when Sarah withdraws her attention from watching Gladys and from the cups. Sarah is mostly an observer who rarely tries to engage her mother's attention, and does her best to have a chance with the cups.

While more research along these lines is clearly necessary, this pilot data is quite revealing. First, it is evident that adolescent mothers and their children cannot be lumped into one category insofar as adolescent mothers differ with respect to the extent of commitment to the role of motherhood. Second, the interviews and videotapes indicate that self-conceptualization and commitment to the role of motherhood are important contextual features of differences in the organization and structure of adolescent mother-child interactions. Paying attention to these different early interpersonal connections is useful since the children of adolescent mothers experience and come to know the world through such interactions. Thus, children of teenage mothers, who differ with respect to the identity-formation issues I have considered here, will bring different expectations about the world, interpersonal relationships, and their own roles in various kinds of activities with them to Head Start programs. And so, rather than assuming that these children are lacking in various domains of development, sensitivity to differences in the children's interactive experiences will enable early childhood care providers to build upon what they already know and bring them in contact with other productive modes of functioning.

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Creativity as Interaction *Fran Hagstrom*

In this paper, creativity will be discussed as an interaction with the goal of leading us to think about how such an approach might change teaching and curriculum agendas. First, some American notions of creativity will be outlined, since it is by understanding where we are that we can consider how we want to change. I will then frame creativity as an interaction, and follow with a few thoughts on what this changed view might mean to our approach to educating children in Head Start.

Creativity entered the American educational agenda in about 1950 as an attribute which individuals possess. Research began with adults recognized as being creative in our society. Tests were developed to measure how much and in what ways these individuals were creative. It was found that highly creative people like novelty, introduce complexity into tasks, are open to new ways of seeing things, exhibit a willingness to take risks (Barron, 1988), and tend to be intrinsically motivated (Amabile, 1983). Programs were designed and implemented to train and/or enhance the creativity in school children, based on such notions derived from end-point analysis of creative people.

The legacy of this research is that today, when creativity is discussed, it reflects American values derived from investigations with culturally recognized creative individuals. When our school children speak of being creative, we find a reflection of these values extended into a broad range of daily activities. For example, in a survey conducted with Massachusetts school children this academic year, activities as diverse as eating, shopping, learning, and sleeping were listed as creative. When asked to tell what they meant by being creative, these second and fifth grade students included themes of original ideas or new ways of thinking, being different, and doing things to express themselves. My point is that children today talk about creativity as a way of approaching tasks in their lives, and that this is a message we have in part constructed and disseminated through our educational systems. We have stressed creativity as a personal trait, something an individual possesses. It is this view I wish to challenge with an interactive perspective.

What does it mean if creativity is understood as an interaction? There will be a mutuality of linkage which brings together the interplay of personal inclinations and available opportunities in culturally defined contexts (Užgiris, 1991). School is a culturally defined context. Within this context, materials, strategies, and activities to facilitate learning are available. These come with a cultural history of their possibility for creative use. Children are present and bring with them personal histories developed within families and communities. The value placed on where and how to be creative may vary widely in a class. Teachers and aides bring not only personal but also educational histories that are value laden on issues of what it means to teach, what constitutes education, and the role of creativity in child development and learning within curricula. When we bring all these strands together, we see that American

notions of creativity may be embedded in many aspects of the learning interaction. However, what is meant by being creative in each of these aspects may differ. Viewing creativity as an interaction addresses this very issue. It is in the forming of mutual linkages that the diverse and separate possibilities of being creative can change in school contexts to build upon past understandings and generate future ones.

The heart of this issue is interaction, learning as interaction, and creativity within this learning as interaction. While not all interactions are creative, it is my position that all creativity is interactive. When creativity is reframed as an interaction, the stress is no longer on what the individual has or does not have, or on what the teacher can give to the student, but rather on what is happening mutually within a context. What is important about learning is the interactions between teachers, students, and peers that occur within educational contexts -- be they field trips, crafts, math, reading or writing. In such interactions, I would suggest that more than just the subject matter is being learned. Caring about the material and one's investment in sharing in the creation of insight is also being learned. The lesson is being taught that created information, created knowledge brought together from books, life, and other people is valued. In this sense, how we really teach creativity is by the experience provided in such interactions of learning, not in prescribed programs with step-wise directions for enhancing creative thinking in individuals. The best curriculum for creativity is creative interactions in learning contexts.

I will illustrate this point with two narratives. In separate interviews with a second grade student and his mother, the same story was spontaneously related about a teacher being creative. My point in going through the narratives will be to discuss how a teaching-learning episode, which came to be marked as the creative work of an individual, consists of a series of interactions that were mutually contributed to by a number of participants. Each affected the others and resulted in change and joint construction during the course of events. The narratives relate how the culmination of these interactions provide a notion of being creative within a learning context.

We were discussing creativity and education when the mother gave the following example: "Last year when Aaron had his first grade teacher he was listening to Phil Collins' song 'Another Day in Paradise,' not knowing at the time that it was a story about a homeless person. He brought it in for his sharing time because that was one on his favorite songs. He didn't know it was Phil Collins' effort to, I guess, bring in some money for the homeless. What his teacher did was take it a step further and have the kids perform that song for the whole school celebration, which happens once a month. Then she took it another step further, where you know that it was the children's idea, but rather than just letting it stay in the classroom, she went through the process of showing them how they could expand that idea. They started a collection and collected nickels and quarters and dimes from all the kids in school. They finished by coming up with, maybe, $171. And then they went to the Mustard Seed and spent the day at the Mustard Seed serving lunch. All of the parents baked something and the children helped to serve lunch at the Mustard Seed, which is a place for the homeless. So she (the teacher) took this one very basic idea of a first grader's favorite song, brought into class for Show and Tell, and she showed the kids how they could take one idea and expand upon it."

This story illustrated for the mother a teacher's creativity. Thinking through the reported steps reveals how students, parents, administrators, and the community collaborated in and mutually influenced the events. The first interaction for the mother was between the child and his listeners in Show and Tell. His selection of material was positively commented on and led the teacher to a discussion of homelessness. The child's choice of a favorite song was further reinforced as a good one when the class decided to perform it in a whole school celebration. Within the narrative this is marked as an expansion on the child's idea by the teacher, but while the teacher may have suggested it, mutual linkages between the children and the teacher probably guided events. The next elaboration in the mother's story is the collection of money for the homeless. The success of this took children acting on suggestion and involving themselves in the task, which probably took shape in the doing of it as well as in the initial suggestion of the teacher. Parents, school, and community came together in the final reported interaction of the episode. The teacher's idea to go to the Mustard Seed necessitated administrative approval of the idea, parents willing to cook and help escort children, and a community agency that would open their doors to the group.

The mother's summation that the teacher was creative because she took a first grader's Show and Tell item and demonstrated how to expand on it is insightful. The closer examination of what was involved in such an expansion demonstrates now the teacher's acts were dependent on a host of other people and possibilities within contexts. It is in this way that the creativity of the episode is best captured by the notion of interaction rather than individuality.

The question which confronts us continues to be, Did the child take anything about creativity away from this? When I asked if his present teacher was creative, he began talking about his second grade teacher, but then went on to tell about this same first grade experience. S: The style that she teaches is, like, creative style. I: So that means that she kind of thinks good ideas up? S: Yeah. She, like my other teacher when I was in first grade, she was even a little bit better, because, well, I'm real creative in music. I like Phil Collins' song 'No Day in Paradise.' It's like homeless people. And see, like, there is a whole bunch of ideas. There is like when we got up in the newspaper...sure, and it was about...it was real serious about homeless people. And we went to this place called the Mustard Seed. It was, like, a whole, people has been like, um, homeless people stay just for the, um, because they don't have any homes. That's the only place they get food and stuff. I: And your first grade teacher did all that? S: And we helped out, like sometimes we baked cookies and stuff. She was a real good teacher.

As can be seen, the child's spontaneous story focuses on the Mustard Seed experience, totally leaving out Show and Tell, whole school celebration, and the collection of money. The role of school in his story would appear to be minimal except when it is put in the context of the discussion, which was about creativity in teachers. What is important is that the episode was marked as something special because he chose to give it as example of a teacher's creativity. He did not note her sequential building on his or the class' ideas, but he evaluates the teacher as being a good one. In addition, he credits himself as being creative in music. No one episode in education results in such evaluations, but creative interactions lead to personal understanding of this nature. Perhaps this is reflected in how he talks about what it means to be creative S: Using your mind to come up with something not right in front of you.

As seen in this example, interactions of home and school as well as the materials and subject matter at hand come together and are mutually linked to constitute meaning for being creative. In the context of school, it is not only the knowledge but the examples of creativity that teachers, students, and activities provide that become the understood and valued patterns for being creative. In this sense, creativity is not solely an attribute of an individual but is embedded in interaction.

When viewed in this light, the notion of creativity and how to foster it is radically changed. It is recognized as culturally specific in how it is valued, constrained, and empowered in home and school interactions. It is the child's reconstructions of interactions valued as creative that forms the meaning of the notion, not materials, activities, or people separately. Changing something about the child or the materials or the curriculum or the teacher is not the way to enhance creativity. Recognition that what counts as creative varies among situations and is embodied in interactions, and that these come to constitute the individual's notion of what it means to be creative in a culture is a fundamental movement toward enhancement.

So what is the role of Head Start in the 1990's regarding children and creativity? The goal is to recognize that creativity exists in home and school contexts as children and teachers are being creative together. Children will not be creative with words, crayons, or computers if they are not involved in interactions that typify creativity. Those "attributes" we ascribed to individuals may best be conceptualized as a reflection of what is valued in our mainstream culture as creative. These are reconstructed and passed along through interactions. The learned patterns will be those that surround the child, providing a frame for understanding.

Head Start is one step in the transformation of children's thinking from home-bound and media-bound interaction to that circumscribed by the mandated American educational system. What is valued will emerge in the interactions and form one "voice" in what becomes the child's view of how to function in our society. If interaction is understood as a fundamental aspect of education, changes in the provision of Head Start services will be reorganized with such a perspective in mind. Children bring very different understandings about what it means to go to school, to learn, and to be creative to this beginning point in formal education. If we want them to transform creativity from play into work and daily living, in is from this beginning, from Head Start, that we must set the task of teaching that is focused on interactions as an educational agenda.

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AUDIENCE DISCUSSION

The importance of accepting diversity was emphasized in the audience discussion. A study was discussed in which children who attended a bicultural school were compared with children who attended a bilingual school. In the former, school attention was paid to recognizing and accepting different cultures. In the latter, children participated in activities in two languages. On subsequent tests the children who attend the bicultural school scored higher on measures of acceptance of different cultures and acceptance of people different from themselves. There were no differences between the two groups on Piagetian tasks.

A distinction was made between two emerging issues, even though the studies shared a common theme of looking at things in context. In some of the studies presented, children from a normal population were examined with an eye towards understanding diversity. In other studies, parenting that would be considered dysfunctional was examined in a cultural context. The implications for intervention, it was pointed out, might be quite different in these two contexts.

Roundtable 212 CHILDREN WITH SPECIAL NEEDS: PROBLEMS OF EARLY INTERVENTION AND TRANSITION

Chair: **Elaine Danavall Williams**; *Discussant:* **Linda Randolph**

Connecting Newborns At Risk For Special Education Needs with Head Start Programs *Doris Goldberg, Lorraine Chun, James Langford*

The conditions of the 1990's require creative realignment and connections between information service systems, so that children found to have special needs can receive early intervention services when their needs or risks are first identified. For young

children with known special needs, Head Start can provide a successful early experience with age mates from the community that is not segregated by the type of handicap. For some children, the preschool experience in Head Start can provide early detection of social, education, or health problems that might not have been known until the child later entered elementary school. For parents of children with special needs, Head Start can inform, support, and empower them to advocate for the most appropriate education in the least restrictive environment for their child when they go on to enter the school system. The 1990's challenge Head Start to develop new connections between changing early care and education service systems as well as the data systems that now exist and can identify the children who might benefit from a mainstreaming experience in an early childhood program, which may prevent a later, more restrictive educational placement.

This presentation reports on two studies that have explored methods to identify children very early who are at risk for having special education needs at a later age. The findings of these studies are then applied to recommendations for Head Start's community needs assessment and intake process as well as its objectives for parent education.

SPECIAL EDUCATION STUDY: The first study linked the educational placement records of third graders in the New York City Public School System with their birth certificates and retrospectively analyzed the association of special education placement with characteristics recorded on birth certificates. This pilot study to identify newborns at risk for later special education placement was intended to provide a means of targeting children for preventive interventions in the preschool years in order to reduce their need for costly prolonged special education services in the elementary school years.

When the literature was reviewed for work that had been done on searching for early indicators or predictors of learning disability, a combination of social and biologic risks predominated. When Ramey, et al. (1978) studied birth certificate data in North Carolina, reproductive health and sociodemographic variables were found to be the strongest predictors of school failure. Escalona (1982) reported on the increased jeopardy of children born prematurely who were raised in socially disadvantaged circumstances. Chamberlin (1987) recently reviewed the literature and concluded that perinatal factors have a decreasing, as opposed to environmental factors having an increasing, impact on developmental status as children progress from birth to the age of 7. Palfrey et al. (1987) found an association between mother's educational attainment and early diagnosis of high- and low-prevalence developmental disorders in children.

Methods: Data for this study consisted of linked birth and school records of 162 third graders attending New York City's public schools. Access to school health records was obtained in three elementary schools, each of which is located in a demographically distinct school district: Bedford-Stuyvesant, Coney Island, and Staten Island. All third graders in special education classes (N = 45) were treated as "cases"; more than twice this number (N = 117) were randomly selected from the general education third grade populations in the same schools and treated as "controls." The case group was broadly defined to include the mildly retarded, the emotionally disturbed, and those requiring speech or other therapies to promote learning. Third graders were chosen because placement in special education class is generally arranged at the end of second grade for children evidencing learning or behavioral difficulties in the general classroom setting.

The dependent variable in this study was educational placement status; the predictor variables were obtained primarily from birth certificates, although additional information was gathered from available school records. For example, "medical complications" is a constructed variable representing either maternal pregnancy complications, chronic medical conditions preceding pregnancy, adverse health habits (e.g., smoking, alcohol, or substance abuse), or their combination. "Changed school district" is a variable derived from comparing community school district in which the residence address stated on the birth certificate is located with that where the child is actually enrolled in school; it is a rough indicator of the within-city mobility of children with special needs. These and other such variables were employed to assess the extent to which special education children can be discriminated from those in general education classes.

Results: Distribution of single variables from birth certificates were examined for the study sample by class placement as well as for the total live births in New York City during 1980 (the year of birth for the majority of the study sample). Special education children were far more likely to be Black, male, and having unmarried mothers who lacked formal education beyond high school and who had Medicaid coverage at the time they gave birth. The same variables were then stratified by both race and educational placement: "male sex," "mother's education," and "medical complications" continued to evidence a strong association with educational placement (i.e., the pooled odds ratios exceeded 2) when the effects of race were controlled statistically. However, the degree of association between "single mother" or "Medicaid coverage" was so different between racial groups that calculating a common odds ratio was not appropriate. Among Black children in this study "Medicaid coverage" appears to be unrelated to educational placement.

Stepwise linear logistic regression was performed with the 12 key variables first noted, to identify a set of minimally redundant variables that could best predict educational placement. Regardless of forward selection or backward elimination methods employed, or whether variables were treated as categoric or numeric, the same three factors emerged as contributing independently to special education placement: male sex of the child, Medicaid coverage at time of birth, and one or more medical complications at birth. These three variables were then used as combined risk exposures to predict the children's educational class placement. A correct prediction was made for 25 out of 45 children in special education and, less importantly, 99 out of 116 children in general education. Approximately 4% of live births in New York City in 1980 had a combination of these three characteristics.

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Discussion: This pilot study suggests that certain health factors and sociodemographic characteristics identified at birth are strongly associated with third graders' educational placements. Application of a similar kind of analysis to a much larger sample that would be more representative of the city's 32 community school districts seems worthwhile. Specific risk factors can be expected to vary within diverse pupil populations, as demonstrated here with racial stratification.

In summary, male sex, Medicaid coverage and medical complications were the combined risk factors most uniquely associated with educational placement in the regression analysis. While controversy remains as to whether biologic or social factors determine why more boys than girls end up in special education classes (Shaywitz, et.al., 1990), there are extensive data which suggest that males are more likely to be candidates for special education for biological as well as social reasons (Funnucci & Childs, 1981).

Preliminary results imply that three out of five children who were identified as being at risk for special education will eventually require it. This, in turn, suggests such prognostic methodologies can be usefully employed to supplement the traditional indicators for medical assessment rather than replace accepted methods for screening and evaluating newborns and preschoolers with known biological risks. Classification procedures like those employed here can nevertheless aid in more precisely identifying newborns who should be followed continuously, screened periodically, and receive support services. This should significantly reduce the chances for early vulnerability to progress to later disability, which will be more difficult and costly to treat.

MCH RISKS AT BIRTH: The second study concerns the interdependent health and social risks of newborns and their mothers obtained from the confidential portion of New York City birth certificates. This study examined the live births in the 11 municipal hospitals of New York City during 1989. The municipal hospitals provide health care for the poor and medically indigent population of the city. Many of the women giving birth at these hospitals are unmarried with variable social supports, caring for one or more young children. The live births were then divided into two groups. One group was considered to be at risk for developmental problems, because of poor birth outcomes, neonatal problems, or prenatal exposure to drugs or alcohol, while the other group did not have these risk factors. If a child's developmental outcome is at risk, there is the added burden of anxious expectations and perhaps special-care needs for an already burdened mother. If the mother has health problems and a limited ability to obtain help for herself, the pair is additionally burdened. The cumulative burden of poverty and poor health is compounded by at-risk mothers giving birth to at-risk babies.

Method: Newborns with risk criteria are identified by staff from the New York City Infant Health Assessment Program (IHAP) from logs and medical records in the hospital of birth. IHAP is a program conducted throughout New York State to identify newborns who are at risk for developmental difficulties. The program tracks these children for the first five years of life to ensure periodic developmental assessment and referral to special services as the need for such services becomes defined. The state criteria for newborns to be registered for IHAP are: birth weight less than 2001 grams, gestation less than 33 weeks, major congenital anomalies, inherited conditions screened for at birth in New York State (including hypothyroidism and sickle cell disease), NICU care for more than 10 days, and mothers under 16 years of age. The NYC IHAP program added maternal alcohol and/or drug abuse to these criteria because of the extent of the problem in New York City and its effect on infant mortality and morbidity. Maternal substance abuse is currently the registration criteria for over half of the newborns that are registered in IHAP.

The IHAP registration form is manually completed at the hospital for each newborn identified and is then entered into a computerized data system. The IHAP registration form is then matched with the New York City birth certificates in the New York City Vital Registry in order to extend the IHAP data base and utilize the sociodemographic and medical information on the confidential portion of the birth certificate.

Results: Over 95% of the IHAP registered infants that were born in municipal hospitals during 1989 were matched to their birth certificates. When the sociodemographic characteristics of IHAP and non-IHAP births at municipal hospitals in 1989 are examined, the two groups are seen to have differing racial/ethnicity and nativity patterns. IHAP has a much lower percentage of Hispanics and Asians (both groups having notably better birth outcomes when income is controlled) and a higher percentage of non-Hispanic Blacks than the non-IHAP group. When maternal nativity is examined, IHAP has a greater percentage of mothers born in New York City or Puerto Rico and a smaller percentage of foreign-born from Central America/Caribbean or South America.

The percentage of mothers who are married varies in the two groups, with more than 84% of the IHAP mothers not married, as compared to 63% of the non-IHAP mothers. There is not a marked difference in maternal education, between the two groups: 79% of the IHAP mothers completed some high school but no higher education, as opposed to 74% of the non-IHAP mothers. Of the IHAP mothers, 10% completed some post-high school education, as opposed to 13% of the non-IHAP mothers. Examination of insurance coverage shows a similar percentage in each group with Medicaid coverage. Fewer IHAP births were covered by other forms of health insurance, however, and 24% were self-pay, as opposed to 20% in the non-IHAP group. Self-pay at a municipal hospital probably indicates medical indigence or a low income without health insurance coverage.

The type of insurance coverage was then examined by the extent of prenatal care. IHAP has almost twice the percentage of mothers, 18.4%, compared with 9.9% of non-IHAP mothers who had no prenatal care, even though they had health insurance. The discrepancy is greater for the non-insured, with 33.6% of IHAP mothers without insurance having no prenatal care, as compared to 7.84% of non-IHAP mothers. However, 14.4% of the non-insured IHAP mothers come for first trimester prenatal care, as compared

to 22.7% of the non-insured, non-IHAP mothers. There seems to be greater divergence of behavior between the IHAP and non-IHAP non-insured.

When the birth outcomes of birth weight and gestational age for the two groups are compared, the difference between the birth outcomes are not surprising, since birth weight under 2001 grams and gestation under 33 weeks are both criteria for IHAP. When maternal medical conditions were examined, however, the greater percentage of IHAP mothers with medical conditions, 28.2%, compared to 18.5%, was quite marked. IHAP has approximately twice the percentage of mothers with either a sexually transmitted disease or anemia as the non-IHAP mothers.

Different prenatal exposures to the fetus were then examined. The greater percentage of mothers in IHAP who use hard drugs and alcohol was not surprising, because IHAP uses these criteria for registration. The much greater percentage of tobacco users in the IHAP group, however, is noteworthy, and supports the idea that the two groups are quite different in their behaviors, and that smoking has a known association with low birth weight, which is an IHAP criterion.

Discussion: There are health and social indicators that show the IHAP and non-IHAP mothers, as well as their newborns, are different from each other. The IHAP mothers are more apt to be Black, unmarried, and not have insurance coverage. They tend not to come for any prenatal care, and have medical conditions and adverse health habits. Lack of insurance is not uniformly associated with no prenatal care, nor does having insurance coverage mean that women will seek early prenatal care. No prenatal care should be considered a risk factor in itself, and mothers who have not gone for prenatal care should be screened carefully to ascertain the reason why and then offered a range of health, education, and social services to insure that the child will be brought for primary pediatric care.

CONCLUSIONS: Birth certificate data for a specified locale can provide important information for the annual community needs assessment that Head Start requires, and this is used to plan expansion of Head Start programs. The confidential section of the birth certificate contains sociodemographic and health data that are both timely and specific. Planning for Head Start Handicapped Services could be expanded in relation to local community needs, and IHAP tracking in a given community could serve as another source for Head Start local recruitment and enrollment. Early intervention systems, which are being planned and developed as a result of P.L. 99-457, Part H, will provide a continuum of tracking, screening and service interventions and can link to both special early childhood settings as well as mainstreamed settings such as Head Start. Studies, such as the one cited, which look at risks present at birth that are associated with later special education placement or other developmental outcomes, need to be expanded and repeated periodically, so that the risks for special developmental problems can be more widely acknowledged and children with these risks can be linked to early intervention services.

Head Start should be connected with the Child Find Registries of early care programs as they develop. Ideally, these registries will begin at birth and will follow the children at risk through the preschool years, insuring services for children that develop or manifest problems during the preschool years. Some of the children will be best serviced in highly specialized programs, but many others can be well serviced in a community-based program like Head Start, where they can be introduced to school with children having a range of differences.

The parent involvement philosophy of Head Start makes it particularly well suited to support the parents of children with special needs. Parents are the continuing force for their child's advocacy, and the rationale for an individual family service plan (as required for children from birth to 3 years by P.L. 99-457) does not lose its importance when children become 3 to 5 years of age and older. Although it will require increased training of Head Start staff and early intervention specialists to empower parents of children with a wide range of special needs, the effort is compatible with the strengths and mission of Head Start and will ultimately support the parent-child relationship and the transition to the elementary school special education system.

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Access to Early Intervention and Preschool Services by Handicapped Children and Their Families in New York City *Maureen Durkin, Patricia O'Connor, Suzanne Billings, Leslie L. Davidson*

In this presentation we summarize the background, purpose, methods, and findings of a study of access to early intervention and preschool services by handicapped children and their families in New York City. We also discuss implications of the findings for planning the future of Head Start and for planning ways to improve the accessibility of preschool services to children with

special needs. Part of the background of this study is the Federal legislation passed in 1986 (P.L. 99-457), which stimulates states across the United States to develop systems for providing early intervention services for infants and toddlers with special needs.

In New York State the Department of Health (DOH) responded to P.L. 99-457 by developing regional planning groups to assess the status of early intervention services in each region and to make recommendations to DOH to improve early intervention and coordination of services for children with special needs. As one of their activities, the regional planning group for New York City contracted with our research group to design and implement a study to identify barriers that prevent some children with disabilities from receiving services at an early age. The regional planning group requested that we focus specifically on barriers from the perspective of the parents.

Before designing the study, we spoke with several groups and individuals, including early intervention specialists, parents of handicapped children, and school administrators, teachers, and principals. Several of these groups, in particular, the principals of New York City public schools for handicapped children, told us repeatedly of their impression that a large proportion of children entering the school system at age 5 or 6 with disabilities had no early intervention, preschool services, or any services for their disabilities prior to entering the public school system. They felt this was true for severe disabilities as well as conditions such as learning disabilities and mild mental retardation that are often not noticed until a child enters school. A further impression of these individuals was that children with special needs who receive early intervention and preschool services are often in a better position to benefit from the special education programs in the schools. Because of this widely shared impression, and the concern that if children are not reached before entering school it is almost too late, the New York City Board of Education was very interested in our study and willing to give it an expedited approval.

The study was designed to answer two questions. First, we wanted to document this impression of school principals and others and determine what proportion of children with severe disabilities entering the public school system at age 5 or 6 had not had access to early intervention services. Second, by talking to parents of disabled children now in the public school system and asking them to look back at the period before the child entered school, we sought to identify barriers that prevent some children from receiving early intervention and preschool services.

METHOD: The population for the study consists of children in all five boroughs of New York City who were between 5 and 7 years old at the time of the study (1990) and who were attending the separate and special public schools for children with severe disabilities in New York City. From this population of 1,427 we selected a random sample of 487 children to be included in the study. The population consists largely of children with severe emotional disorders. Many of these children also had other disorders, such as mild mental retardation. The next largest groups consist of children with severe mental retardation (SMR), autism, orthopedic and multiple handicaps, and, finally, deafness.

The overall participation rate was 63%, and it was very difficult to get even this level of participation. The interviews were done by telephone when possible. They took about 30 minutes, and parents were paid $10 for their time. Interviews for those who did not have telephones were done in their homes. We originally intended to interview parents in the schools in conjunction with their Individualized Educational Plan (IEP) meetings. However, this turned out not to be feasible, because so few parents attend the IEP meetings. In fact, the link between the parents of some of these children and their schools appears very weak. For example, 14% of the parents in this sample were unreachable. In most of these cases the schools had neither a valid address nor phone number for the child's parent or guardians. Given this participation rate, the study results are only generalizable to the 63% of the children whose parents were interviewed. We do not know whether the results for those who were unreachable or who declined to participate would differ. Before determining the proportion who had received early intervention services prior to the age 3, we removed from the sample those children whose disability was due to a catastrophic event after their third birthday or who otherwise did not have an apparent disability before age 3. There were 71% boys, 86% born in New York City, 49% Black and 81% with their mother as a primary caretaker.

RESULTS: Among 235 children who had an apparent disability before age 3, 22% had no early intervention services before age 3, and an additional 10% had some but did not receive all of the basic services their parents felt were needed. Therefore, from the perspective of parents a total of 32% did not receive adequate early intervention services. We have not looked specifically at Head Start participation, but 34% of the children did not have any preschool experience, and 88% did not attend day care. Many parents reported that it was extremely difficult to find preschools that would accept handicapped children.

Among the children with early, identified disabilities, 12% did not have access to primary health care before age 3. Not surprisingly, children without primary health care were much less likely to have had access to early intervention services than those who did have primary health care (48% as opposed to 71%). Many parents who reported having access to early intervention and preschool services reported that it was their primary health care provider who made the initial referral to those services.

There were also relationships between income, medicaid and other insurance coverage, and access to early intervention services. When the study participants are classified by income, the lowest rate of access to early intervention services is in the second lowest income group, those with income just above the poverty level. These families are probably less likely to have Medicaid or

insurance coverage than others. When classification is by insurance coverage, those without Medicaid or other insurance also had the lowest rate of access to services, with only 59% having access and services.

RECOMMENDATIONS: Financial barriers to services for families just above the poverty level should be removed. Families that are not eligible for Medicaid and families that have incomes just above the poverty level have the lowest rates of access to early intervention services. Governments should provide adequate funding for Head Start programs to serve handicapped children. Primary health care should be extended to all children. Lack of primary health care is a barrier to early intervention services for severely disabled children. The Head Start parent participation programs should be expanded, extended, and replicated in early intervention and in public school systems. Head Start's role in coordinating health education, screening, and social services for children with special needs should be strengthened.

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Transitions from Early Intervention to Preschool: Child and Family Impacts

Carole C. Upshur, Penny Hauser-Cram, Marty W. Krauss, Jack P. Shonkoff

P.L. 99-457 (Education of the Handicapped Act Amendments of 1986) set in place a new discretionary program for states to develop comprehensive early intervention services for infants and toddlers with disabilities (ages birth through 2 years). It also required that states provide public education services for all children with disabilities beginning at age 3 as a condition of receiving federal preschool education funds. In most states, early intervention programs for children between the ages of birth and 3 years of age are managed by different agencies (e.g., public health, social services, interagency councils), whereas preschool programs are managed primarily by education departments (Meisels et al., 1988). The law acknowledges the need for coordination and linkage between the two systems by requiring transition planning as part of early intervention service plans (Hauser-Cram et al., 1988). Although there is some literature on the effects of transition from preschool to kindergarten or first grade for children with disabilities (Fowler et al., 1988), the importance of the transition from early intervention to preschool programs has been recognized only recently (Rice & O'Brien, 1990).

Knowledge of the impact of the transition process in early childhood is important because it is reasonable to assume that it may be a stressful experience for both children and families. Research on children without disabilities has noted physical and emotional reactions in those who experience changes in preschool or child care placement (Field, 1984). Moreover, a child's adjustment in a new school setting has been found to set the stage for the quality of subsequent school adaptation and further school transitions (Ladd & Price, 1987).

Several studies of parents of children with disabilities have described the anxieties associated with the transfer from family-centered, primarily home-based, services that characterize early intervention programs to child-focused, center-based preschool programs (Bernheimer et al., 1983; Hanline, 1988; Spiegel-McGill et al., 1990). Parental concerns and anxieties may be compounded if the preschool program is a mainstreamed setting, such as Head Start, because of worries that not enough special support will be provided (Turnbull & Winton, 1983). Yet, referral to Head Start programs and other preschool settings is encouraged by the Office of Special Education Programs as a way to guarantee the "least restrictive environment" provisions of Title II of P.L. 99-457 (Fowler et al., 1990). Thus, research on the factors associated with the adjustment of children and their families to the transition from early intervention programs to preschools will be useful to parents and to both sending and receiving programs.

An investigation of preschool transitions was incorporated into a longitudinal study of young children with disabilities and their families who entered early intervention services in Massachusetts and New Hampshire between 1985 and 1987 (Shonkoff,

Hauser-Cram, Krauss, & Upshur, 1990). In both states, when children with disabilities reach 3 years of age, they leave state-supported early intervention services and are often referred to local preschool programs.

METHODS: Data were available for 177 children at age 3 years from three different sources: their mothers, the children's preschool teachers, and an independent assessment of each child conducted by research staff. A home visit was conducted at the time of the child's third birthday by research staff who were independent of the service system. At the visit, a multi-dimensional assessment of the child was conducted and the mother was interviewed. Mothers also were asked to complete self-administered questionnaires concerning their experience with the transition process and to return them by mail after their child had entered his or her preschool program. Parental permission to contact the preschool teacher to collect information about the child's classroom was also obtained.

The study was designed to address four questions: 1) Were there any differences between children who did and did not enter a preschool program at age 3?; 2) What types of preschool programs did children enter?; 3) How was the transition process planned and implemented?; and 4) Were there specific difficulties and benefits associated with the transition process?

RESULTS: Sample children were 36.7 months old at the time of data collection. A majority were male (54.8%) and white (89.8%). Most (82.6%) lived with both parents. All had entered early intervention services at under 2 years of age and were members of one of three groups defined by type of disability: 1) Down's syndrome (n= 51); 2) motor impairment (n= 72); and 3) developmental delay of uncertain etiology (n= 54). The mean level of cognitive ability of the children, as measured by the General Cognitive Index of the McCarthy Scales of Children's Ability (McCarthy, 1972) or the Bayley Scales of Infant Development (Bayley, 1969), was 62.1 (SD=23.6). Almost one-third had a score of 50 or below. Families in the study had a range of incomes, with 20.8% reporting an annual income below $15,000 and 29.5% reporting $40,000 or above. More than half of the mothers (54.2%) had some education beyond high school. The vast majority of children (82.5%) made a transition from an early intervention program to a preschool program within six months of their third birthday. For the 17.5% (n= 31) who did not enter a preschool program at age three, a variety of reasons were identified. In some cases, parents made the decision not to enroll the child in preschool. In others, the early intervention program personnel recommended to parents that their child no longer required special services. In a few situations, no appropriate program was immediately available, and parents chose to wait for a particular placement. Family moves also resulted in delays for some children.

The sociodemographic characteristics of the 31 children and their families who did not enter preschool programs were compared to the 146 children who did enter programs. These two groups differed in three ways. First, children who did not enter programs had a higher mean score on the McCarthy or Bayley scales ($\bar{x}$ = 76.9, SD= 21.9) than those who did enter programs ($\bar{x}$ = 59.1, SD= 22.8). However, three children with scores below 50 were in the group that did not enter programs promptly. Second, a significantly smaller proportion of males (74.2%) than females (92.5%) entered programs. Third, a lower percentage of families reporting annual incomes of less than $15,000 had children who entered programs (72.2%), in comparison to children from families reporting incomes over $15,000, where 86.1% of children entered programs. There were no differences between the two states in the proportion of children entering programs.

Descriptions of the classroom placements and special services for the 146 children who entered preschool programs were obtained from teachers. Most programs were described as following a developmental approach (65.8%), 13.7% were focused primarily on language stimulation, and the rest were described by a variety of other terms (e.g., enrichment, structured, behavioral). Ten children entered Head Start classrooms. Half of the children attended preschool five days per week; another one-third attended four days. The mean length of the school day was 3 hours, with a range of 2 to 9 hours. The degree of mainstreaming in the preschool program was defined as the percentage of other children in the classroom with Individual Education Plans (IEPs). The mean percentage of children with IEPs was 78%. Only about one-fifth of the classrooms had 50% or less of the children with IEPs. Thus, most settings had relatively few children without special needs, and only eight children in the sample were enrolled in settings in which no other children had special education plans. Only one child or family characteristic was significantly associated with the degree of mainstreaming. Children with higher cognitive scores were enrolled in classrooms where a lower percentage of the children had special needs.

Information about the transition process was obtained from both mothers and teachers. Because mother responses depended on mailed-in questionnaires, there were 101 respondents out of the group of 146 children who entered preschool. Analysis of sociodemographic differences between those who returned the transition questionnaires and those who did not revealed that the respondents had higher family incomes, were more often married, and had completed more years of education. The children, however, did not differ on any major characteristic, including type of disability, health status, gender, or cognitive score. We found that for over half the families, the initial contacts with preschool programs were made directly by the early intervention program personnel. Mothers themselves made the initial contact about two-fifths of the time. Less than 1% of mothers reported that the preschool made the initial contact. A large proportion of the mothers also reported active participation by themselves and their early intervention program personnel in a range of activities at all stages in the transition process. In addition, over half of the mothers (60.0%) were offered a choice of preschool programs. In terms of the perceived helpfulness of various professionals in the transition process, mothers rated early intervention staff the most positively. Importantly, preschool teachers, specialists, and administrators were also

given high helpfulness ratings by over half of the mothers who had contact with them. Finally, teachers were asked about the information they received on children entering their classrooms and about how they participated in the planning process. It was found that teachers were very involved in planning for most children who entered their classrooms, and that the majority had more than one month notice before a child was enrolled.

Several possible difficulties have been identified in previous studies, including time gaps in services, disagreements between parents and preschools as to appropriate programs, symptoms of anxiety in children, and parental concerns about mainstreaming. In contrast to prior studies, we found mothers reported a fairly smooth and well-supported transition process. For example, we found a low incidence of time gaps between services, with only 7% reporting a hiatus of more than three months. Mothers rated their overall satisfaction with the transition process positively, with 53.3% indicating they were "very satisfied" and 24.8% "satisfied." Mothers were also "very satisfied" or "satisfied" with their child's classroom (90.4%), and reported positive relationships with their child's teacher (75.0%). However, 18.1% were "dissatisfied" or "very dissatisfied" with the transition process. In addition, about one-third of the mothers reported some disagreement with their child's program. Most disagreements focused on receiving special services (e.g., occupational therapy, physical therapy, speech and language therapy (13.5%), while 10.6% reported disputes over the amount of services offered, 9.6% over issues related to transportation, and 6.7% over their child's specific classroom placement. Not surprisingly, mothers who reported disagreements over what type of special services or the amount of services to be received were less satisfied with the transition process overall. In addition, those who reported a poorer relationship with their child's teacher reported lower satisfaction with the transition process. However, dissatisfaction with the transition process was not significantly associated with any specific child or family characteristics. Mothers' reports of their child's adjustment to the transition process revealed that only eight children experienced significant difficulties. However, 49 children showed some anxiety or concern during the process, most commonly manifested by symptoms of separation anxiety, crying, sleep problems, and temper tantrums. Mothers who reported better adjustment and fewer symptoms for their child reported higher overall satisfaction with the transition. Mothers' reports of the impact of the entry of their child into preschool on their own lives revealed both benefits and concerns. Concerns included not knowing the details of their child's day (71.6%), exposure of the child to illness (57.7%), separation anxiety (47.0%), loss of control (39.8%), and fears about their child's safety (25.2%). On the positive side, however, mothers reported benefits with respect to the opportunity for their child to make new friends (99.0%), the growing independence of their child (98.1%), more time for themselves (87.0%), and the availability of school personnel to answer questions about their child (79.2%). In contrast to other studies, the degree of mainstreaming in the child's placement was not associated with mothers' ratings of the transition process, feelings about benefits and concerns related to entering preschool, or their child's adjustment.

DISCUSSION: Overall, the transition from early intervention to preschool services was found to be a generally positive experience for children and families. Early intervention programs provided a great deal of support to parents and appear to have successfully taught parents to be advocates for themselves. Most mothers gathered information about programs, made on-site visits, and attended the Individual Educational Plan meeting. While over 80% of mothers reported satisfaction with the transition process, about one-third had some disagreements with various aspects of the preschool program. In addition, mothers reported some symptoms of anxiety for both themselves and for about half of the children. Transition clearly is a time for the surfacing of some concerns and worries for both parents and children. However, the level of satisfaction with the overall process is an indication that adequate support was provided for resolving these issues.

The lack of significant service gaps for a large proportion of the sample provides further evidence of systems that work. Good coordination is evident between early intervention and preschool services in both Massachusetts and New Hampshire in terms of communication and sharing of information. One note of caution, however, should be given about the sample members who did not enter programs at age 3. We are still following these families and children and will be collecting information from them about their preschool experiences when the children reach their fifth birthday. It may be that analysis of the reasons why this group did not enter program will reveal other issues.

Finally, analyses designed to assess determinants of maternal satisfaction revealed few patterns. For example, the degree of mainstreaming of the placement was not associated with more concerns on the part of mothers, and no specific child or family characteristics were associated with lower satisfaction with the transition process. Thus, the variability in satisfaction and adaptation to transition among this sample appears to be highly individualized. Further work is necessary to determine whether other factors such as underlying family stress or parental coping strategies are more meaningful in determining which families will have more difficulty with the transition process. However, our analyses so far indicate that the procedures and systems in place in Massachusetts and New Hampshire for the transition from early intervention services to preschool worked very well for a wide range of children and families.

Successful Mainstreaming in Head Start *Susan Feingold*

In the mid-70s, when Head Start was exploring approaches to meeting the needs of handicapped children in the regular classrooms, five agencies surfaced and became recognized as mainstreaming models. The Bloomingdale Family Program was one. All five programs developed their models independently. Yet all five programs identified two common elements that they considered to

be basic to success: additional space for individualized work with handicapped children and additional staff. The inclusion of these two elements required additional funds. Sadly, only two of the five models have survived. Let me describe briefly how Bloomingdale managed the development of its program.

From 1973 to 1978, Bloomingdale staff, parents, and board members raised funds to pay for the rental, supplies, and equipment of a small apartment across the street from our school. This apartment became known as the "one-to-one" room. We initiated and sponsored a VISTA project that was approved by the Governor of New York State for a total of twenty volunteers. Four worked with us, and 16 were placed in service-related agencies in the community under our supervision. It is noteworthy that most of these volunteers became highly recognized professionals in the field of early childhood special education. In 1975, a foundation grant allowed us to produce the first of seven video training tapes exploring various aspects of our work with handicapped children. These videotapes have been and are being distributed nationally by the Audio Visual Resource Center of Cornell University. In addition, we discovered that videotape recordings are an effective tool that provides an unbiased view of each child's growth and progress over a period of time. They can be used for team meetings, development of individual education plans, teacher and parent training, ongoing planning and evaluation, outreach, placement of children after they leave us, and much more. When our VISTA project was phased out, special federal grants, foundation grants, support from private benefactors, and parent fundraising allowed us to maintain the necessary support services. Approximately 25 children (22%) have diagnosed handicapping conditions that include serious emotional disturbances, neurological impairments, developmental delays, severe communication disorders, elective mutism, and autistic features.

The basic structure of our mainstreaming model is still intact. At present, we operate out of two sites and employ two early childhood special education teachers with Master's degrees and one special education intern. Two of these are bilingual in Spanish and English. Together with parents, teachers, and volunteer consultants, they develop individual education plans that include "one-to-one" play therapy for each handicapped child. Their focus is on helping each child work through whatever problems stand in the way of his or her growth and development. Both the frequency and length of sessions are individually determined. Two small, well equipped "one-to-one" rooms are used for this purpose. The special education staff works closely with the classroom teachers to ensure that every child's mainstreaming experience is made meaningful. We also employ a substitute teaching team to free up the regular teachers for one three-hour communication and planning session per week.

There is a higher percentage of handicapping conditions in deprived populations and a poorer chance for compensating for these conditions. Studies focusing on middle-class and poor children with the same handicapping conditions found that socioeconomic status was the greatest determinant in terms of outcome. Honig documents this in an article called "Risk Factors.") It is quite clear that we can turn this around only if our children are given the best and the most comprehensive services we can offer. Early identification and early intensive intervention are the keys to resolving problems that later on are much harder to deal with or may even be irreversible. No academic preparation can prepare a teacher for the depth of rage and sadness that we sometimes find in preschool children when we provide a therapeutic educational setting that allows them to express such feelings. These feelings of rage and sadness must be dealt with before these children can utilize and benefit from the learning environment we provide and before they can gain ownership of their inner resources that allow them to be productive. I would like to be specific and offer one example from the Bloomingdale experience:

Gloria in her quietness stood apart in a classroom of chattering 4-year-olds. Her extremely shy, withdrawn manner isolated her from the other children. She held her baby doll tightly and looked at his face with a hopeless expression. Gloria worked by herself and could not risk interaction -- could not risk sharing who she was. There were many indications which showed that Gloria was a child who used most of her energy holding back thoughts and feelings. The fearful quality of her play combined with withdrawal indicated that she was a depressed child. We knew that without help her intellectual as well as her emotional growth might well be stunted. Gloria was diagnosed as emotionally disturbed and suffering from childhood depression. We used the team approach to help Gloria work through her problems. Home visits revealed that Gloria, her 19-year old mother, and two younger brothers lived in a two-room apartment with 10 other people. It became clear that Gloria, Gloria's mother, and her two brothers shared important characteristics: all were fearful, withdrawn, mistrustful, anxious, sensitive, and depressed. The children were morbidly attached to the mother. We realized that both Gloria and her mother needed a consistently supportive environment that they could learn to trust. Despite her youth, Gloria's mother was caring and concerned about her children and anxious to do what was in their best interest. Little by little, Gloria's mother was able to establish a close and trusting relationship with one of our staff. We learned that when she was 12 years old, her world fell apart. She witnessed the tragic and violent death of her mother and father and was given into the custody of an aunt who abused her and from whose home she ran away. Eleven months after Gloria was enrolled in our program, the family became homeless as the result of a fire. There was a need for massive intervention and all kinds of collaborative relationships. Gloria received intensive play therapy in our school. Gloria's mother was helped to express her own need for professional help, and our close relationship with a nearby mental health facility allowed us to arrange for therapy. After the fire, a variety of community resources were contacted, and the family was substantially helped with food, clothing, and emergency funds. Our close daily contact with mother and children eased the four months of shelter living and facilitated relocation to city housing. With the assistance of an immigrant rights' organization, the mother was enabled to become a legal resident. After Gloria was enrolled in a regular kindergarten, we arranged for a local college to provide follow-up therapy, which she received for two years. Gloria's younger brothers also

attended our school. Both needed and received special help. Gloria now attends a local public school in her community. She is in fourth grade, and is an exceptionally gifted child who has many friends. Her future looks bright.

Almost 18 years of experience in mainstreaming have allowed me to reach some understanding as to what is needed to develop a successful integrated learning environment. To begin with, we must understand that mainstreaming is a program extension. This extension cannot be carried out successfully unless we make sure that the total program meets certain prerequisites. The most important one has to do with staff attitudes. All staff must be supportive and respectful of cultural diversity and individual differences. All staff must be willing to accept children and adults as they are and with no preconceived notions as to what they should be. All staff must believe in the value of a team approach that includes parents. If such attitudes are firmly in place, parents and staff are ready to move toward a shared belief that an integrated learning environment benefits both handicapped and non-handicapped children.

A second prerequisite is the existence of an early childhood setting that is focused on meeting individual needs and accommodating individual learning styles -- a setting that can help children become enthusiastic and confident learners, is child initiated rather than teacher directed, and encourages children to communicate, interrelate, articulate, explore,discover, solve problems, and make friends. This kind of setting requires highly skilled and experienced teachers. Administrators as well as parent policy committee and board members must know how to attract, select, nurture, and retain such staff. Other factors that are essential to the success of mainstreaming include: small class size and sound adult/child ratio; well trained volunteers; access to timely assessment and diagnosis; knowledge of and access to appropriate supportive services, including on-site special education staff; and a carefully developed structure for communication among program component staff and consultants.

Many of the prerequisites I have cited are difficult to meet at this time. We are gratified by the Bush Administration's acknowledgement of Head Start's value and effectiveness, and we are grateful for the infusion of additional federal dollars to expand the numbers of children served in Head Start. However, we are troubled by the fact that for well over a decade our program's infrastructure has been neglected and depleted. The ever escalating program cost has far too long been absorbed by service providers, and the consequences have seriously damaged our ability to maintain the comprehensive quality services that have always been the catalyst for our success. I would like to summarize the major problems and consequences. Low teacher salaries cause teacher shortage, teacher turnover, lowering of educational standards, and a lack of teachers with credentials in early childhood special education. These factors seriously impede agencies' ability to provide an early childhood setting that is conducive to the development of a meaningful mainstreaming program. Federal and local enrollment and average daily attendance requirements have resulted in Head Start class sizes that range from 20 to 24 children. When we put numbers ahead of quality, we weaken the educational foundation and open the door to failure. When we cripple our ability to individualize curriculum, we shortchange all children, particularly those with special needs.

We are in dire need of restoring cutbacks in consultants. There has never been a greater need for professional expertise. The frightening increase in substance abuse, domestic violence, child abuse and neglect, teenage pregnancies, homelessness, and AIDS calls for a consortium of committed human services professionals. We need social workers, psychiatrists, psychologists, speech and language therapists, and other specialists who can work with individual children and families in their Head Start centers. We need educational consultants to help teachers refine their skills in observation, assessment, planning, and evaluation, so that individual education plans cease to be gestures of compliance and become meaningful tools for meeting the special education needs of every child. P.L. 99-457 could be the catalyst for generating funds that would allow us to bring on board some of these special services. Head Start, more than any other publicly funded early childhood program, has been the pace setter in developing a non-restrictive environment. Some of us have demonstrated that mainstreaming is indeed a viable educational alternative for many children. I believe that Head Start, by virtue of its structure, its intent, and its pioneering efforts, can and should be woven into the fabric of P.L. 99-457. It is important for regulations to be made sufficiently flexible so that recognized mainstreaming models can become state-approved sites. There is a need for state and federal officials and educators to come together in order to resolve conflicts arising from differences between federal mandates governing Head Start services to handicapped children and state regulations governing the implementation of P.L. 99-457. Moreover, these conflicts combined with socio-economic changes make it important for us to re-evaluate and possibly redefine the child population that can best benefit from an integrated learning environment. This should include a reassessment of "children at risk." There is a pressing need to draw down funds for individualized therapeutic services on the basis of need and without the requirement of a specific diagnostic label. Unfortunately, the future of the Bloomingdale mainstreaming program seems uncertain. Eighteen years of demonstrated successes have not yet been rewarded with assurances of continued funding. But we have embarked on a human enterprise that is very difficult to interrupt or end. And so we shall continue to harness all our resources -- both within and without -- to help us make a better life for all our children.

Discussion *Linda Randolph*

One of the things I would like to do is go through a few constructs from the presentations and then try to put it into the way I currently am thinking about public policy and what needs to happen in this arena. I think all the points have actually been made by the speakers already, but perhaps I will recast them a little bit.

First and foremost, I think everyone has heard that the issue of access to primary and preventive health care for pregnant women, infants, and young children is a number-one priority. It is a number-one priority for a number of reasons, the least of which is

that this access has already demonstrated certain positive outcomes and we have already indicated that there are populations and individuals who do not have access. People always think of prenatal as being at the point of time that you go for your first pregnancy visit. Prenatal, or perinatal, means the visits during pre-conception as well. One of the things we do not think a lot about is the fact that many women do not enter the health care system until they are pregnant. For those women who enter at some point before then, there is an opportunity to do some early intervention with those women.

I am talking about a continuum of care. We already know that both for the prenatal side or perinatal period and for infants and young children the work has been done for us -- at least in the health arena in terms of the notion of periodic visits and what is to be happening in those periodic visits. So, we have a schedule. We know what we want to see. The difficulty is getting people there, keeping them there, and transitioning them on a developmental continuum from one or several service systems to others.

We talk about tracking. We heard a lot about the process of tracking and we heard a lot about the process of transitioning. Now, our systems call these things differently. Some people talk about tracking. Some people talk about follow-up. Some people talk about transitioning. Some people talk about discharge planning. It is really sort of discharge planning transitioning. You are leaving one place and going to another. If I could put it another way: it is where you were before you got to where you are now and where you want to be, which may be different from where you are going. Therefore, there is a real need to think about it along that continuum -- a continuum that is developmental in nature. It is also a continuum as it relates to the family unit. One of the things that very often happens, particularly in the human service delivery system, is that the human service delivery system sees different people in the family and does not connect what they are doing to or for that individual in the family with what other needs exist for other family members, or where they are in terms of accessing those services. Thus, for example, mom is in prenatal care and she is at a particular income level which means she is eligible for Medicaid. Most likely she is in WIC. In fact, she may be in WIC and not in prenatal care. Hopefully, she is in WIC first while she is waiting to get her appointment for prenatal care if there is an issue about service provider capacity. There is the notion again of another system. I look at prenatal care, WIC, and Head Start almost as a unit. Prenatal care is predominately in the health arena, Head Start is a comprehensive program, and WIC actually is a kind of interface between the two.

A lot of times it is in the health arena, but oftentimes it is operated by a cap agency which was the same agency that operated Head Start programs. You begin to see the potential linkages by the nature of the system. When you consider it in terms of individuals and not in terms of families, you do not make those connections. It is making those connections and transitions, and making assessments in all of those arenas, that have implications.

The other aspect is the human service delivery system. Here, we are talking about early identification and outreach. Every single human service delivery program has an outreach component. There is not one that does not have an outreach component. Why is it we can't integrate those outreach components at the community level? Why can't we begin to restructure the way in which we look at how each of these service delivery systems attempts to identify the individuals it is going to try to serve? In many ways, 99-457 is an opportunity to begin to do that for this particular population we are talking about.

Regarding some of the data that was presented was about birth certificate information, what can be done with other information, and information even before the birth certificate: If you have got prenatal information, if these women were in prenatal care, you would have had nine months to work with this family or family-to-be before you had to begin the step. It still goes back to accessing primary and preventive health care as a major component.

I think of the intervention process in two ways. First, it has a preventive component. Early intervention can mean that they won't end up with developmental delays. Everything I have heard here leads us to believe that we have got to give all children an entitlement to an early and sustained start in life. Therefore, from the vantage point of health services and interventions to perhaps prevent developmental delays, this would be clearly an advantage.

Secondly, the early intervention process is designed to reduce the extent or the impact of disabling conditions. In order to do that, there is another dynamic that comes into play -- building on family strength and recognizing that you have to strengthen family supports. Within the construct of early intervention, the words that none of us can define the same way come to the fore -- care coordination and case management -- everybody has their own definition. What that means is that everybody wants to be one of them and nobody wants to be coordinated or managed by the others. The dynamic of how, from a public policy perspective, that coordination and integration of services takes place and then how, from a family perspective, families begin to move into an arena of actually becoming increasingly more their own case managers are issues about which we might argue.

It is clear that the constructs of Head Start contain many of the strengths that much of the intervention system can relate to -- strong parent involvement. Head Start is the only federal program that is an integrated human services federal program of health, education, social services, and parent involvement. We have a lot to learn in terms of how that happens. Head Start has the ability to focus individualized attention, group attention, and a family service support attention; it has linkage to community resources; has a training and technical assistance component, and clearly is built on the construct of continuity of development.

One of the things we must do is build empowerment into our service delivery system. It is a restructuring of the way the service delivery system thinks about what it is doing and how it is doing it. You are attempting to enhance a person's power by allowing them opportunity, by allowing them choice, and by giving them the opportunity to assert control. It is the right to take control, the knowledge to take control, the confidence to take control, understanding the risks of taking control and accepting the

responsibility. That is manifested in three ways. For staff, it means moving from one who does to one who enables. For families, it means moving from protectiveness to supportiveness. For individuals, it means moving from accepting ideas or suggestions to autonomous decision-making. Part of the ability to bring all of this together is the extent to which there is a community response to support and a community sense of responsibility for the families that reside in those communities.

One of the things that is happening slowly is that we are finally understanding, from the human services perspective, that these problems are too overwhelming for any one service system to be able to adequately address. Perhaps the impact of drugs is the straw that has broken the camel's back. People have said there is nothing else to do. I have to work with you. I have to work with other people in order to be able to accomplish what needs to happen. That legacy will then translate into a community's response and commitment. Getting children and women and families into primary care and preventive services is a community responsibility. We have not empowered a lot of our communities to recognize what it is that needs to be done. Head Start is a leader in this arena, and we can capitalize on the experience of Head Start to move this agenda forward.

Roundtable 213 MEETING THE NEEDS OF MINORITY CHILDREN AND THEIR FAMILIES
Sponsored by the Association of Hispanic Mental Health Professionals

Chair: **Arnaldo Ramos**; *Discussant:* **Ricardo Romo**

Parent Early Language Training *Arnaldo Ramos*

At a developmental center in the South Bronx, 5-year-old Miguel is being evaluated for the second time. Although he is in kindergarten, he does not know how to spell his name. He does not even know the number five, the number of his age. He does not know what the color blue or the color red is. Miguel does not know the difference between the word "above" and the word "under." Miguel's language skills are severely delayed in both English and Spanish. Miguel never went to Head Start or any other preschool program. At age 3, he was referred to a developmental center by a pediatrician. However, his mother never followed through. She thought that he would catch up with the other children later on. When Miguel's mother was a child, she also had language problems. She was held back in elementary school twice and ended up dropping out of junior high. Unable to read well, she does not read to Miguel. There are no books at home. Miguel's story is typical in today's America. Too many developmentally disabled poor children are never reached by early education programs. According to the Children's Defense Fund (1991), only one out of four preschool children with family incomes of less than $10,000 a year attended a program in 1988.

On the contrary, more than half of those with family incomes of $35,000 or more were enrolled in a preschool program the same year. At home, many poor children are not exposed to a stimulating environment. Today, an increasing number of developmentally at-risk children live with their functionally illiterate parents. This situation is worse for minority families, where more than half of all Hispanic children and almost a third of all Black children have a parent who does not have a high school diploma (Children's Defense Fund, 1991). Hispanics are four to six times more likely than the general population to read English below the fourth grade level. There is no evidence that they would do better in Spanish. Also, parents like Miguel's mother are unaware of the benefits of language interaction on a child's cognitive development. These parents are overwhelmed by poverty, crime, drugs, and illness in their immediate environment. Thus, they do not stop to think about the importance of teaching language at home, as many middle-class parents do. While some of these parents do engage in warm and caring verbal interaction with their children, they need reassurance and more information about efficient ways to communicate with their children. Since these parents are overwhelmed by the bureaucracy of our educational system, especially when they do not speak English, they need help.

Out of the need to help parents like Miguel's mother learn how to stimulate their children's language, project PELT was created. It is hospital based. Most children eventually visit the hospital, yet may not attend preschool programs. PELT was initially funded by the New York State Disabled Children's Program at Lincoln Hospital in 1987. Currently, it is funded by the New York City Health and Hospitals Corporation at Morrisania Neighborhood Family Care Center in the South Bronx, one of the poorest districts in the United States. Most of the parents who come to PELT are poor Hispanic (84%) and Black (15%) single women. These parents have children with language disabilities or language delay. Most parents are functionally illiterate. They live physically isolated from others in apartments in the South Bronx with two or three children. Most receive public assistance (80%), and about half are getting SSI for their developmentally disabled children. Although the majority of children are said to be living solely with their mothers (60-65%), this is not always true. Some mothers are initially afraid of reporting a male companion at home because they are on welfare. Some children are accompanied by both parents (less than 10%). An increasing number of children are brought by foster and grandmothers (25%). This is because of the crack epidemic among poor minority women in inner cities in recent years. A few children come with fathers for the PELT program. There are language differences between and within each group. Half of the Hispanic group speaks only Spanish. One-third are bilingual (English/Spanish), and 17% speak only English. In the Black group, English is a second language for some parents whose primary language is an African or Caribbean dialect.

The program goals are to: 1) improve the language skills of children; 2) moderate behavior problems of children; 3) break the isolation of these parents by developing a social support network; and 4) empower parents who have a poor self-image. Parents

learn how to improve their children's language proficiency. These children are able to enroll in normal school programs. Also, if these children are receiving speech and language therapy, their rehabilitation is shortened by having a stimulating environment at home. The less language preschool children have, the more likely they are to express themselves physically -- breaking and throwing objects, hitting other children, and having temper tantrums. Language gives these children a more appropriate way to express themselves. By teaching parents to play with and talk to their children, parents are less likely to use force in dealing with their children. Through the PELT program parents are encouraged to support each other in working with their children. The group also provides support for the parents' own struggles. Parents feel better about themselves when they see changes in their children's behavior and language that result from their interventions.

METHOD: Parents usually participate in the PELT program after their children have been evaluated at the Center for Child Development-Morrisania NFCC. However, some parents attend PELT before and during the evaluation process, which requires several appointments with members of a multidisciplinary team. By coming to the PELT program, parents feel more engaged in their children's evaluation process and tend to miss fewer appointments. Parents attend PELT for four consecutive weeks. Each session lasts 1½ to 2 hours. Parents can go to a group in either Spanish or in English. Typically, out of 20 parents invited to the program, 8 come to the first session and 5 finish the entire program. At the end of the training, parents receive a certificate of attendance. For many, this certificate is their first. The sessions are under the supervision of a bilingual psychologist trained in early language development and cross-cultural issues related to ethnic minority groups. Although there is a curriculum designed for each of the four sessions, the groups are run with a great deal of flexibility. The trainer usually tries to convey as much information as possible at the first meeting. Thus, those parents who come only for the first session will at least be informed of the basic tenets of language development and language stimulation.

The four sessions have been designed as follows. In the first session, the trainer explains the normal stages in motor, social, cognitive, and language development from birth to age 5. Parents learn how to recognize various types of language and speech problems. They also learn how to monitor their children's language development. Parents discuss concepts related to language, such as the difference between receptive and expressive language. They also watch a videotape introducing PELT. On this video, parents who completed the program talk about their children's language problems. This videotape is effective for stimulating the newcomers to talk about their own problems.

During the second session, parents discuss problems that can interfere with their children's normal language development. They receive explanations about the types of hearing losses and the effects of frequent ear infections. Parents learn how to discriminate between mental retardation and other developmental disorders (e.g., developmental expressive language disorder). Parents learn how an emotionally upsetting environment can affect a child's language. They also discuss the effects of language understimulation and the effects of bilingualism.

During the third session, there is a presentation and discussion of activities that promote language development. Parents talk about the importance of play in the children's cognitive and social development. Parents are videotaped while interacting with their children in specific activities, such as reading a story. Then they review and analyze the tapes with the psychologist and other members of the group. The focus of the discussion is on the parents' positive behavior to build up their self-confidence. During this session, parents have the opportunity to buy inexpensive children's books (in English or Spanish). Parents practice reading to their children at home this week as an assignment.

During the fourth session, more educational activities are planned and videotaped. In a circle, parents and children sit together to work on a scrapbook. They cut out pictures from magazines and glue them into a scrapbook. During this last session, parents talk about their experiences reading to their children at home. Based on the needs of each group of parents, a fifth session might be planned to review their training.

The PELT program tries to deal with cultural diversity. During the sessions, the trainer analyzes problems in terms of cultural differences between mainstream middle class American values and poor ethnic minority values. For example, while middle class Americans plan their children's education from kindergarten, many poor ethnic minorities do not plan because of a lack of resources and educational background. Since many parents do not speak English, the program is offered in English and Spanish. Parents are taught how to cope with bureaucratic educational and health systems. They are told about their rights. They are encouraged to fight for their children's rights. These parents usually do not feel they can change schools rules and policies. They tend to feel alienated from what happens in a school setting. In PELT parents are motivated to be involved in school activities, talk to teachers regularly, supervise their children's homework, look for another school if they are not satisfied, and even sue the system if they feel their rights have been violated. Parents are supported in their daily life struggles. Because of poverty, these parents are constantly vulnerable to a wide variety of problems. Before starting to educate them on early child development, the trainer checks for any emerging problem, such as a sudden homeless situation, a close relative who was mugged or sent to prison, etc. Other parents in the group offer emotional support and practical solutions to these problems. Child care is provided so that parents attend the first two sessions without their children. An assistant to the trainer plays with the children, getting information about how they function. This enables parents to concentrate better on the workshop. Parents are encouraged to bring along other members of their families and

friends. Ethnic minorities tend to be people-oriented. Usually these mothers bring a friend or a relative along to sessions. The setting is informal. Refreshments are served during the workshops.

RESULTS: More than 150 parents completed the four-week training workshop from 1987 to 1990. These parents reported a marked improvement in their children's language abilities as a result of putting in practice what they learned in the PELT program. They were also more willing to follow recommendations from a developmental center, especially those parents who were reluctant to place their children in preschool programs. Parents' improvement in their self-esteem led many of them into a search for educational advancement. In fact, quite a few parents enrolled in ESL, literacy, and GED courses after attending the PELT program.

CONCLUSIONS: Since language and other developmental problems are getting worse among poor minority inner-city children, there is a need to expand programs like PELT to other hospitals. Although other programs have successfully trained parents of language impaired children (Levenstein, 1988), they have further isolated these families because the programs have been brought to the families in their homes. There is also a need for more sensitivity about cultural diversity. Training in early developmental areas among poor ethnic minorities should be delivered in their languages and cultural differences should be considered. One of the objectives of these training programs should be to support parents in their own daily struggles. These parents need an opportunity to advance themselves in education and work related areas. According to the House Select Committee on Children Youth and Families, $1 spent on preschool education can save $6 in later social costs. If we want to help children like Miguel to break his family cycle of illiteracy, we have to start as early as possible.

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Family and School Functioning -- Challenges and Stressors

Irma H. Serrano

ABSTRACT

The Preschool Unit of the Children's Services Program at Soundview-Throgs Neck Community Mental Health Center in the Bronx was merged with the On-Site School Program. This was done in order to provide comprehensive therapeutic intervention to children attending the pre-kindergarten programs at the public elementary school in the community. The school provides services to children in pre-K through third grade. The Center's On-Site Program has been providing mental health services to children from first grade to third grade for the past six years.

During the 1990s, a great deal of attention will be focused on many children in our communities who will present mental, behavioral, and developmental disorders as a result of the crack epidemic. Clearly, the home and school setting are the primary environments in which children grow in today's society. In order to develop a prevention program for potentially "high risk" preschool children, we have to develop a parenting program which would include parental training and guidance to utilize and maximize the benefits of mental health services. In order to establish a viable program, our first line of intervention will be to work with parents/guardians.

The pre-K population attends school for half a day. Mothers/guardians stay in school for that period of time. We consider the first step in prevention to be the establishment of a parent education program. Parents should help in recognizing and understanding milestones in child development in order to better understand their children's behavior.

The Soundview-Throgs Neck Community Mental Health Center recognizes the importance of offering comprehensive services to the preschool population. In order to serve this population most effectively, services provided would include both clinical and consultation components. Specifically, it would include: observation in the classroom; identification of children needing services; crisis intervention; case management (referral to other services); psychiatric and psychological testing; discussion with teachers on an ongoing basis; workshops for teachers on identifying problems, management in the classroom and early identification of special problems; and parent/guardian educational groups.

The preschool program is designed to provide comprehensive services to preschoolers who manifest mild, moderate, or severe behavior difficulties stemming from a combination of developmental impairments and delays and/or a seriously problematic home environment.

A significant number of children entering pre-K this school year are children who have been exposed to crack. Our interest is to have early identification of the possible effect that crack might have in their development. We will rely on observations as well as family interaction. A high number of the children attending the pre-K groups are in foster care. Our intention is to develop a program in which we can help parents/guardians, and at the same time develop early identification techniques which will help the children's development.

Special attention will be given to the impact of culture and cultural differences that exist in conceptualizing behavioral, mental, and developmental disorders. Several instruments will be used in the process of managing and identifying high-risk populations. Teacher and parent questionnaires will be used.

Integrating Pediatric Services With Head Start: A Joint Challenge for the 1990's *Martha Lequerica*

The findings of a research study conducted in an outpatient pediatric unit and the reflections derived from my clinical experience as consultant of Head Start programs strongly suggest there is a need for a close collaboration between pediatric outpatient units and Head Start programs. This close and mutual collaboration would facilitate a more effective delivery of services for low-income preschool children and their families. Specifically, a multi-fold goal could be accomplished. It would serve families and children from low-income communities. It would enhance Head Start personnel, children, and parents' familiarity with medicine and medical/health issues. It would contribute to the training and sophistication of pediatric residents in developmental and behavioral issues in early childhood.

METHOD: The prevalence of behavior problems as reported by mothers of low-income preschool children (ages 2 to 5 years) was studied. The impact of frequently addressed and pertinent variables, such as maternal depression and stressful life events on maternal reports, was addressed (Beautrais, Fergusson, & Shannon, 1982a: Fergusson, Horwood, & Shannon, 1984). Methods of discipline and health factors such as chronic illness and hospitalizations were also taken into account. In addition, relevant demographic variables, such as mother's educational level, home language, and attendance to preschool programs, were also investigated.

Sixty of 76 mothers contacted while awaiting pediatric appointments agreed to participate in the study. Of them, 86.6% were Hispanic and 13.4% were African and African-American. The children, ages 2 to 5 years, were registered patients receiving primary care from a pediatric resident, attending or nurse practitioner during March 1986 to December 1987 (data gathering phase). Twenty-five of the children were male (41.7%) and 35 were female (58.3%). Mean age of the children was 41.9 months.

The mothers were given a four-and-a-half page questionnaire in a face-to-face interview in English or Spanish, depending on their preference/competence. The interview followed standardized procedure and lasted about 50 minutes. All mothers were interviewed by this investigator, who is bilingual and a licensed psychologist. The questionnaire was adapted in part from three well-known instruments: The Child Behavioral Checklists (CBCLs by Achenbach and Edelbrock, 1981; Achenbach, Edelbrock, & Howell, 1987); The Psychiatric Symptom Index (Stein and Jessop, 1985); and a shortened, adapted version of the Social Readjustment Scale (Holmes and Rahe, 1967). The majority of the population consisted of Hispanic (86.3%), Spanish speaking only (53.3%), single mothers (53.3%), of whom two thirds (63.3%) were receiving public assistance. In addition, 50% of the sample had no more than some high school, and only 25% had a high school diploma.

RESULTS: The main findings of this study were fully reported at the New Jersey Psychological Association meeting in 1990. For this presentation, the most pertinent findings are as follows: low enrollment in Head Start or preschool programs; high prevalence of five "acting-out" or "externalizing behaviors," and only one "internalizing behavior"; clinging/too dependent; significant correlations between methods of discipline and behavior scores; and a high rate of hospitalization.

A brief discussion of each of these findings is needed. The study revealed a very low enrollment of these families in Head Start programs. Only 14 children of those eligible to attend were enrolled (that is, 29% of the 48 children ages 2 yrs. 9 mos. and up). A total of 34 children, that is, 71% of the eligible sample were not enrolled and thus were not benefiting from the stimulation and socialization provided by these educational programs. This 29% enrollment figure obtained in our study in 1987 is 8.6 percentage points lower than the closest national enrollment figure available, reported at 37.6% for 1983 (Schweinhart,1985) The 29% is equal to the national enrollment figure in 1974 (28.8%), a 13-year-old lag in preschool enrollment for this section of the Bronx (Schweinhart, 1985). Mothers reported six problem behaviors to be most prevalent or occurring often (versus sometimes or never). These behaviors were: always on the go, unable to sit still, demands a lot of attention, demands must be met immediately, quickly shifts from one activity to another. All these five are considered "externalizing behaviors" that place demands on the outside world. They are often identified as behaviors associated with Attention Deficit Hyperactivity (ADHD-like behaviors, DSM III, 1987). The sixth high-prevalence behavior was: clings to adults/too dependent, considered an "internalizing behavior," which may involve inhibition or conflict with self (Schwartz and Johnson, 1985). Another important outcome of the study refers to the correlations found between methods of discipline and the prevalence of behavior problems. Total behavior problem scores were significantly related to the use of yelling as discipline method ($p = .0058$). Similarly, the externalizing score was also significantly related to use of both yelling ($p = .0025$) and spanking ($p = .0082$). A fourth and striking finding refers to the high rate of hospitalization in this sample. Thirty children (50%) were reported to have been hospitalized at least once before the age 5. Three children (5%) were reported to have been hospitalized three times prior to age 5.

For the most part, these results can be viewed within the socioeconomic, cultural, and ethnic context of the families studied. That is, explanations may be found within the context of a mostly immigrant population, composed of single parent homes with a low level of education, living in crowded housing, and using authoritarian childrearing styles handed down from previous generations. In particular, low enrollment in Head Start reflects a multifactor causality. Lack of information on preschool programs and/or cultural biases that entrust the young to relatives or friends are among them. Enrollment in preschool is often mixed with fears over separation and/or sexual abuse. It is also known that preschool enrollment decreases as the educational attainment of the head of household decreases (Schweinhart, 1985). In this study, 53.3% of households were headed by single women, who spoke only Spanish and had

completed no more than some years of high school. Others may argue that since a high percentage of the mothers (63.3%) were full-time housewives, they had less pressure to enroll their children. However, outside maternal employment is only one factor in preschool enrollment (Schweinhart, 1985), and may not have been a factor in this study since 65% of mothers, employed or not, followed up and completed their registration.

Similarly, other explanations would consider the health patterns of Hispanic and African-American families to account for the high rate of hospitalization. Asthma, which often requires hospitalization, was found at a rate of 10% in this study, versus the 2% to 4% reported in the general population (Melamed and Johnson, 1981). The passivity of our system of care, which offers no systematic efforts of community outreach, must also be considered. For example, Hispanic and African-American communities have little or no access to mobile units that can provide door-to-door help/information on health matters. Finally, and most relevant perhaps to this presentation, is the connection to be made between the findings on behavior, discipline, and hospitalization, on the one hand, and the low enrollment in Head Start programs, on the other.

CLINICAL EXPERIENCE: A case can be made that the children in our sample, by being home with their mothers or relatives full time, were bored and understimulated, thus constantly displaying attention seeking and clinging behaviors. In addition, the mothers may have been unaware of normal expectations regarding activity levels in young children, or may have been reacting in culturally bound fashion. Under traditional Hispanic norms, children are often expected to be "well behaved." Similarly, in regard to the findings on discipline, mothers using yelling and spanking may have been uninformed of alternate methods, such as ignoring negative behaviors or the use of time out, among others. Poor use of play and or constructive channeling of activities can also be considered. Often, these alternative methods are introduced in workshops for parents held at Head Start centers. As part of the comprehensive services offered to families, parents are encouraged to attend parenting seminars offered by different experts. Through these workshops, mothers may learn of special techniques and more effective ways of communicating and setting limits. In addition, this learning is supplemented by the parents' exposure to the teachers' modeling of such discipline methods in the classroom. They are also exposed to individual counseling provided by the mental health consultant when the need arises.

Lastly, in regard to the high rate of hospitalization in this sample, an indirect link with Head Start could also be made, which is mainly that families in Head Start receive many benefits in the health field. For example, families receive support for their follow-up with doctors appointments. Also, families receive information on house safety and accident prevention. They are additionally exposed to information on health related issues through workshops, fliers, and their talking to other parents with similar health concerns. Here again, the argument becomes compelling about the collaboration needed between pediatrics and Head Start. Were parents given the opportunity to raise their child-health issues in open sessions with pediatricians a few times a year they would have much to gain, and so, most likely, would the health of their children. Pediatricians need to become aware of the multiple benefits rendered by Head Start programs on a short- and long-term basis. Only then can they communicate their full endorsement to their clients. In addition to the benefits previously mentioned, other positive effects have also been reported by research findings. Some refer to effects in life style outcomes and the reduction of psychopathology (Lazar & Darlington, 1982; Zigler & Valentine, 1979). Furthermore, irrespective of the mother's participation in the labor force, early childhood programs allow an enhancement of the parent-child relationship by providing both elements of the dyad an avenue of stimulation, separation-individuation, and the availability of a support network with shared community and cultural values. Finally, since Head Start provides ongoing screening for speech and developmental problems through the services of a mental health consultant or psychologist, a second chance for developmental screening would thus be made available. That is, physicians would ensure that any cases that are doubtful or have slipped through the cracks of outpatient pediatrics may have a second chance and would likely be picked up by Head Start personnel.

CONCLUSIONS: From these facts, it is apparent that pediatricians may have to incorporate a strong educational mission when working with minority clients. The rate of 71% of unenrolled, yet eligible children in the study reveals the compelling need to include educational guidance and referral to Head Start programs when delivering primary health care. In particular, this intervention becomes imperative when working with families in low income neighborhoods. Often, in such areas, the pediatrician, nurse, or family practitioner may be the only professional low income children may be exposed to in their first five years of life. Thus, it devolves upon them to fulfill the mandate for comprehensive medical care (that is, psychosocial as well as biomedical aspects of child health). One important aspect refers to the awareness of the educational needs of these families and, with this awareness, the need to make appropriate referrals. In fact, when the Head Start programs were presented and discussed with the mothers in the study, the mothers were receptive. And when help in placement was provided for them, 65%, or a total of 22 families, followed through and completed the referral process. Only two families rejected placement; the outcome of four cases remained unknown. The remaining six children, all 4 years to 6 months old and over, were not referred to Head Start because they were too old. Rather, the families were strongly encouraged to initiate the process of enrollment in kindergarten.

It may be that the educational nature of these referrals, the absence of a labeling process, and the concrete, immediate nature of the help provided, which lacked multiple and formalized appointments, account for the high success rate of this intervention. In my experience as a consultant to Head Start programs, the casual, small, and non-bureaucratic nature of these settings contribute to families feeling at ease and welcomed, rather than estranged or threatened, as is often the case in large and crowded hospitals.

IMPLEMENTATION: When is it the best time to initiate such referral from the out-patient pediatric clinics? It seems the most propitious time would be at the 2-year-old check-up visit. When parents bring their toddlers for their scheduled boosters and height and weight gains, an anticipatory guidance session could then be presented. At this time, parents could be steered into the appropriate framework for placement and subsequent enrollment in Head Start by age 3. However, this proposed collaboration between Head Start centers and pediatric departments needs to go beyond referral of parents to Head Start. Similar to pediatricians' involvement in the local school boards as advisers in educational matters, they could become involved in Head Start as equal partners in the process of early education. This involvement can be initiated at the residency level, so it becomes ingrained at the training stage. For example, periodic visits to local Head Start programs can be arranged three or four times a year for first- and second-year residents. In such visits, my experience suggests that physicians could go in pairs into classrooms with two goals in mind: to observe the children's different activities and social interactions, and to provide an informal demonstration of how a physical examination is done and be available to answer questions from children. After the class visits, small group meetings among physicians, parents, teachers, and Head Start personnel are also proposed. This would facilitate an informal forum in which parents and educators may ask the many questions they often have but do not have a chance to ask. Within this format, pediatricians may also have some questions on some of their patients' functioning in social and educational areas.

What would pediatricians gain as a profession by this interchange and collaboration? By familiarizing themselves with local centers and making periodic visits, pediatricians would gain a better understanding of early child development, the acquisition of language, and the social and cultural nuances among their own patients. In addition, by serving as informal consultants in the management of chronic conditions and prevention of accidents/hospitalizations, physicians become educators as well as healers (thus doing prevention as well as treatment). Also, the individuals and the profession may enhance their image by becoming more accessible. Lastly, physicians' skills in communicating and understanding parents' concerns would become enhanced, thus facilitating their main role as healers.

This proposed model of collaboration also requires of the efforts from Head Start to reach and participate more closely with pediatric medicine. Some of this collaboration was foreseen and established at the inception of Head Start. Since 1965, the health component of the program requires and enforces vaccinations, check-up visits, and the keeping of medical records on every child. Similarly, as part of the health component, health and social work personnel help parents keep their medical appointments. To expand this current involvement, Head Start programs could also recruit children for Head Start enrollment from OPD waiting areas where parents congregate daily, and schedule class visits to OPD to have children learn health matters and increase their perception of hospitals as friendly rather than feared places.

In sum, integrating medical with educational services in this proposed format could bring benefits to all involved. Teachers, physicians, parents, and children would have a chance to get acquainted more informally, learn from each other, and develop a two-way communication system. Most importantly, low-income preschool children and their families would reap the benefits of a prevention program in which the medical and educational establishments work in unison toward the care of the whole child.

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Discussion *Ricardo Romo*

The PELT program is truly a unique program which I have not seen in Texas or California. They are interested in children, and they are interested in parents, both within the context of a community in itself. It should be duplicated in our communities. I think the success can be attributed to parental involvement. We have enough research to show that pre-K programs that work for low-income children mandate the participation of parents. What was interesting to me as shown in the video was that all the parents

involved were women, and the mothers are the ones who transmit the culture and language. The question has to be, How do we get more men involved in the education of their children? I think it is very crucial to have the mothers involved -- and they should be -- but the men have a responsibility too. Also evident are the various Spanish dialects that we heard in the video. We have assumed that the Puerto Rican community is in New York, the Mexican community is in Los Angeles, and the Cuban is in Miami, but that is not the world any more, and we have to move forward. The more we quickly learn about that, the more effective we will be as teachers, practitioners, and so forth. The video that we saw today by Professor Ramos could be used as a training tool for social workers because it shows the diversity of the Latino community in terms of the various dialects, and color too! I was struck by the serious language disadvantages that these children have.

Serrano spoke about mental health, and we are aware of and need to be reminded that the mental health profession is one in which we have so few individuals, so few practitioners, and it is interesting to see that the work that she is doing is involved with expanding horizons, not just talking to each other, but talking to a lot of other people. She reinforced the notion that there are many new immigrants to New York. The rest of the country is not as aware that this generation is very different from the previous generations of groups. Going back and forth to Puerto Rico is totally different because Puerto Ricans have access. They are citizens and have access back and forth. The immigrants who come here now are cut off from their homeland. They are cut off because of the distance, as in the case of the Mexicans; it is an enormous distance from the homeland. They are also cut off because they are not citizens in many cases, and that is going to impact their ability to bring parents and support systems, and it is going to impact their network systems. Professor Serrano talked about the impact of drugs. We have yet to see the full impact of crack; what impact will that have on our communities? We know that youth are especially vulnerable. Many questions -- questions of diversity, questions of language, questions of parental involvement, questions of curriculum -- have been posed. Our last presentation was one in which I was struck by the fact that we have interesting information here, beginning with the whole notion of chronic illness.

How do we teach children and work with families that have so much illness in their homes, especially the low-income groups. While many of these are covered by Medicaid, there are families, especially immigrant families, that are not covered by Medicaid. They do not qualify for Medicaid, and one serious illness can devastate the income of that family. We also note from other research that the incidence of TB and diabetes in this group is extremely high; three to four times higher than the general population. Having just come from a couple of cities where I have seen this, chronic illness also appears to be related to the environmentally dangerous areas that groups live in. I will give you one example. We think of palm trees and beaches in Los Angeles. When I was living in Los Angeles, they did a study at UCLA Medical School and found that people who live on the east side of the freeway were more prone to illnesses because of the smog the ocean blew over. On this side was the UCLA student housing. I was struck by this fact and commented, "Well, we're so lucky; we live on the west side of the freeway! The good side of the freeway!" The poor people in Los Angeles live in the eastern section of that town, where the smog stays, and it affects your breathing, it affects your lungs, it affects your eyes. This is, unfortunately, the situation for many in Los Angeles, New York, and New Jersey. For many communities, it is environmentally dangerous to live there.

The other aspect of our last presentation has to do with the fact that we know so little about depression among the immigrant population. We are getting to know a little bit about the population that has been here for some time. We do not know how parents are affected by alienation and isolation. I want to remind you about a presentation yesterday where we heard that Black families who live in integrated communities had less interaction with their neighbors than Black families living in segregated communities. Could the same be held true for immigrant children? We don't know. Enrollment figures for Head Start are still too low; someone has to do a study of the parents who do not enroll their children in Head Start. Again, perceptions are often more important than reality.

Roundtable 214 ASSESSMENT FOR EARLY CHILDHOOD PROGRAM PLANNING

Chair: **John Love**; *Discussant:* **Joyce Videlock**

Using Child Assessments in Program Development and Evaluation *Charles W. Hill, Suzanne D. Hill, Sharon Hutson, Janna Rode, Dianne Short, Judith Loyde*

The SUCCESS screening tasks have been used for the past three years throughout our program covering 42 classes and serving approximately 840 children. This battery was administered by the teachers at the beginning and end of each program year in order to learn the strengths and weaknesses of their children. SUCCESS was developed by the Institute for Child and Family Studies at Texas Tech University. Twelve tasks, covering gross and fine motor skills, visual and auditory discrimination, and number and spatial scales, were developed within our program. The SUCCESS battery was reported as standardized on 15,000 children, giving us some confidence in their 3-, 4-, and 5-year-old norms, but the assessment of self-help and social skills has been a continuing problem for us as we attempt to establish reliability throughout the program. Using ideas from other available instruments, we have developed three sets of 5-point scales for self-help -- covering feeding, dressing, washing/toileting -- and another three sets for social skills -- covering independence, cooperation, and social interaction. Each year we modify these scales in response to

comments from the teachers and analyses of their records, and each year we also attempt to improve the training of these teachers. We view this area of a child's development to be equal, if not greater, in importance to the motor, perceptual, and cognitive domains, especially during this early Head Start period. These assessment records have been collected and analyzed so as to produce comparative data for all the classes and centers. This information is then used to improve policies and procedures regarding (a) the selection of children, (b) the development of the curriculum, and (c) the training of personnel.

During the three-year period, 1987 through 1989, the average composition of our incoming children has been: 80% "normal" 4-year-olds, 5% "normal" 3-year-olds, and 15% handicapped children. Our two primary indices of general development have been 1) the percentage of children who are within or above the 4-year-old norms on all the tasks and/or scales, and 2) an index of improvement that reflects the decrease, from fall to spring, in the number of children below the norms on one or more tasks weighted by the number of such tasks. We have been developing and using these indices just for comparisons within our own program -- among our classes and centers -- between entrance in the fall to departure in the spring, and from one year to the next, and not for comparisons with other programs or national norms.

An average of 9% of the 4-year-olds were within or above their normal range on all of the SUCCESS tasks when they entered our program, and this increased to 61% by the end of the year. Their average improvement index was 208 (up from 264 in the fall to 56 in the spring). Again, these numbers are meaningful only in relation to each other, as their size is determined by the number of tasks below the norms and the number of children who are below by that amount.

The individual SUCCESS tasks giving our children the greatest and the least difficulty have remained the same over the past three years. Easiest for our children have been Gross Motor 2 (from 4% below norms to 0%), Body Parts (from 2% to 0%), and Auditory Memory (from 6% to 1 %). Hardest have been Fine Motor 2 (from 53% to 13%), Colors (from 33% to 5%), and Visual Memory (from 76% to 28%).

We have been establishing our own norms for the self-help and social-skills scales, and the line between "below norms" and "within norms" has been varying somewhat over the years. This, together with the typical greater variation of ratings over performance measures, has produced more instability in this area. For self-help, the percentage of children within or above our norms has increased from 58% to 88% during the year. For social-skills, the percentage has increased from 64% to 82%. These greater percentages in the fall as compared to those for the SUCCESS tasks are undoubtedly due more to inappropriate "norms" than to any superior development of the children in this area.

All the children we have recruited in the 3-year-old group were below the 4-year-old norms on at least one of the SUCCESS tasks, and only 24% of them have been raised out of that category by the end of the year. As might be expected, their general improvement has also been inferior, with an average index of 427 (from 500 to 173) by year's end. Their performance pattern on the individual tasks was quite similar to that of the 4-year-olds. Their self-help and social-skills ratings were lower, and the variability from year to year was substantial.

Handicapped children in our program have been mostly speech impaired and chronic health impaired. About 7% of both groups were within or above the 4-year-old norms when they arrived, and, in both the speech and health impaired groups, these percentages increased to about 27% by the end of the year. The general improvement index during these two years was also about the same for these two groups, changing from a pattern similar to the 3-year-olds to one more like that of the 4-year-olds. Their patterns of easy and difficult tasks were quite similar to those of the 3- and 4-year-olds.

When we first became aware of the fact that we were taking in some 10% of children who were not below the SUCCESS norms on any of those tasks, we wondered whether these children were qualifying for Head Start because of their poor self-help and social skills. After we had developed and applied our rating scales (covering dressing, feeding, toileting, cooperation, independence, and social interaction), we found that these ratings were positively correlated with the SUCCESS task scores. So the question as to whether or not we are taking children who do not need Head Start remains to be answered.

Another question we have asked ourselves is whether "too many" handicapped children in one classroom might have an adverse effect on the development of the normal children within that classroom. By comparing their final assessment results we have found this not to be the case. There were no significant differences among the 4-year-olds, when assessed after a year in Head Start, within classes that varied in the number of handicapped from 0 to 12. Every year we have found considerable variation, among the 8 centers and among the classes within each center, in the various indices that we have used. This information helps the staff and directors in their continuing search for promising procedures to be encouraged and pressing problems to be rectified. Throughout this effort, we all attempt to look at the teachers first for possible responsibility for the successes, and have them be the last resort in responsibility for the problems.

In summary, we believe that this kind of information gathering and analysis, conducted with little additional expense, can be of great value to Head Start grantee staffs and governing boards in fulfilling their responsibilities for providing meaningful policies and monitoring their implementation. Further, we believe that it is very important that assessment instruments and procedures be improved so that they can tell us all we need to know about the strengths and weaknesses of 3- to 5-year-old children. Such improvement is especially needed for the self-help and social skills.

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Effects of a Measurement and Planning System on Cognitive Development and Educational Programming for Kindergarten Children

John R. Bergan, Ingrid E. Sladeczek, Richard D. Schwartz, Jason K. Feld

The transition of Head Start Children to elementary school spans a period of several years. During this time, children encounter a rapidly changing educational environment imposing an array of unique challenges and expectations that profoundly affect their future development. In order for Head Start children to progress during this critical period, they must encounter learning opportunities that are appropriate to their changing developmental needs. There is now wide recognition that assessment in the service of teaching and learning can play an important role in assisting socializing agents to provide these vital learning opportunities (e.g., National Association for Education of Young Children and the National Association of Early Childhood Specialists in State Departments of Education, 1991). Unfortunately, measurement technology that currently dominates assessment practice does not easily lend itself to the task of promoting changing developmental needs (i.e., norm-referenced and criterion-referenced instruments). This paper describes transition research involving a path-referenced approach to assessment (Bergan, 1981; Bergan, Stone, & Feld, 1985). The path-referenced approach provides valuable developmental data by referencing children's performance to position on a path of development.

Assessment instruments designed to serve teaching and learning initiatives must meet three criteria. First, they must assess children's abilities, not merely performance on specific test items. Second, they must accurately reflect development during the transition period. More specifically, they must reveal the progression of skills and concepts reflective of changes in children's level of ability. Finally, they must provide information that can be used by parents and teachers to plan developmentally appropriate learning opportunities to promote children's growth. Norm-referenced and criterion-referenced achievement tests typically used to evaluate ability do not meet these criteria.

Norm-referenced instruments, which claim to describe ability in terms of position in a norm group, provide no information about a child's development. Under increasing pressure to raise test scores, then, teachers often align curriculum to the tests (e.g., Mehrens & Kaminski, 1989). As a result, school systems across the country are reporting test results above the national average. This had caused many scholars to question whether standardized test scores reflect ability or merely the efforts of teachers to prepare students to pass specific test items (Haladyna, Nolan, & Hass, 1991; Mehrens & Kaminski, 1989).

Criterion-references assessment has long been regarded as the means to evaluates initiatives in the service of teaching and learning. A major shortcoming of criterion-referenced technology is that it provides no way to reveal the influence of instruction on children's abilities or information about their development. Test scores indicate the mastery of specific instructional objectives, not the development of abilities. Not surprisingly, teachers using criterion-referenced assessment focus on the teaching of isolated facts and skills rather than abilities (Cole, 1990). As a result, critical thinking, problem solving, and other higher order thinking activities have often been ignored (Cole, 1990).

One consequence of the failure of norm-referenced and criterion-referenced assessment to articulate a developmental approach to assessment is that schools, under pressure to raise test scores, attempt to boost achievement by teaching skills too advanced for some children's developmental levels (Shepard & Smith, 1988). The consequences are often needless frustration and failure. All too frequently the response of the schools is not to change the curriculum. Rather, it is to assert that the child is not ready for the curriculum, eventuating in educational tracking or retention in grade (National Association for the Education of Young Children and the National Association of Early Childhood Specialists in State Departments of Education, 1991; Smith & Shepard, 1988). A second outcome of lack of a developmental approach is that children are confronted with learning opportunities well below their developmental levels. When criterion-referenced instruments are used for accountability purposes, there is pressure to construct assessment instruments below the developmental level of the majority of children (Kirst, 1991). This makes the school "look good," in that most of the children master a high proportion of the objectives assessed (Kirst, 1991). Unfortunately, it is also deprives children of their right to learn.

Path referenced assessment is designed to assist teachers and parents in providing children with learning environments consistent with their developmental needs and learning interests. We have used the path-referenced approach to develop a measurement and planning system to promote children's development during the transition period (Bergan, Sladeczek, Schwarz, & Smith, 1991). The system contains assessment instruments, planning tools, and learning activities that link the planning and implementation of learning opportunities to assessment information indicating children's current abilities and readiness to acquire new knowledge and skills.

The Measurement and Planning System covers seven broad areas of development: language, math, nature and science, perception, reading, social development, and fine and gross motor development. The scales are designed to assess abilities in ways that recognize the use of knowledge in a social context. For example, the language scale taps the child's ability to understand and communicate effectively with others. The math scale assesses math skills in everyday living situations. The social development scale

assesses children's social problem solving skills, including social responsibility, understanding of the feelings of others, helping and sharing, fairness, and friendship. The scales included in the Measurement and Planning System also emphasize problem solving and other higher order thinking skills rather than role facts. For example, the nature and science scale assesses the ability to make inference and predictions from observations. The reading scale assesses casual and inferential reasoning in story context.

All of the scales in the system include empirically validated developmental progressions that reflect a movement from simple to more complex forms of knowledge (Bergan & Stone, 1985; Bergan, 1988). The scales provide a developmental level (DL) score relating the child's developmental level directly to his or her location on a path of development. Path location indicates the knowledge and skills that the child had learned, is ready to learn now, and will be ready to learn later on. This developmental perspective provides a positive assessment of the child's accomplishments that points the way toward future growth. The developmental perspective links skills into larger knowledge structures (e.g., Bergan & Feld, 1991). The focus of teaching is on these larger structures, not isolated skills and facts (Bergan & Feld, 1991; Bergan et al., in press). Teachers and parents using developmental structures relate simple forms of knowledge (e.g., knowing how to share) to more complex forms of knowledge (e.g., recognizing when to share).

The initial instrument constructed was the Head Start Measures Battery (HSMB). The HSMB is individually administered and includes item calling for extended child responses. The second set of instruments developed for the system were the MAPS-P2 Scales. The MAPS-P2 Scales can be administered in small groups as well as individually. Thus, MAPS-P2 is useful for assessing the skills of children whose knowledge might be underestimated by an examination requiring an extended response. The third set of instruments, the MAPS-C2 Scales, are performance-based observation scales, which provide an authentic assessment of children's knowledge and skills within the context of their natural environment and activities in the classroom. The final set of instruments, the MAPS-K Scales, provide assessment tools for use with kindergarten children consistent with the instruments developed for preschools. Assessment in the service of teaching and learning requires continuous observation. Each of the above assessment alternatives is designed for use with observational data recorded on the Classroom Development Profile and Planning Guide. The guide summarizes assessment results for a class, provides a continuous record of progress, and offers accomplishments. The Individual Development Profile give parents assessment information about a child's development that can be used to provide an enriched learning environment at home and serves as a basis for developing individual educational plans during home visits and parent conferences.

The transition between preschool and elementary school is a period of critical importance with respect to school readiness. In the 1987-1988 program year, the Administration for Children, Youth, and Families and the Ford Foundation allocated funding to examine the role of the Measurement and Planning System in facilitating the transition of Head Start children to the elementary school. The initial transition study examined the effects of the measurement and planning system in kindergarten children's cognitive development, referral to special education, and promotion (Bergan et al., in press). Analyses indicated that kindergarten teachers who implemented the system helped children to achieve significantly higher abilities in math, reading, and science, compared to a randomly selected control group. System implementation had marked effect on special education placement. In classrooms using the system, only 1 child in 71 was placed in special education. Approximately 1 child in 5 in the control condition was placed. Moreover, implementation influenced promotion through its effects on cognitive development. The second transition study examined the effects of a consultation program assisting parents in promoting their children's development (Bergan, Reddy, Feld, Sladeczek, & Schwarz, 1991). A consultative problem solving approach (Bergan & Kratochwill, 1990) was used in conjunction with the measurement and planning system and Times for Learning to assist parents in establishing learning goals and providing learning opportunities for children in the course of everyday family living experiences. Consultation was shown to influence development, to be inexpensive, to make minimal demands on parents, and to be easily adapted to the busy schedules of contemporary families. The third transition study addresses three issues related to the period of transition from Head Start through kindergarten (Feld, Sladeczek, Bergan, Schwarz, & Reddy, 1991). The first involved the mechanisms by which Head Start affects children's immediate and subsequent cognitive development during kindergarten. The second involved continuity in educational programming between Head Start and kindergarten. The third involved the mechanisms by which early cognitive skill acquisition affects subsequent learning. The continuity study revealed that Head Start had a direct beneficial influence on children's cognitive ability at the time of entrance into kindergarten. Implementation of the Measurement and Planning System in kindergarten had a positive effect on ability during kindergarten. Head Start influenced ability at the end of kindergarten.

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Observing Young Children in Action to Assess Their Development *Lawrence J. Schweinhart, Shannon McNair*

People who help young children develop need good measures of child development, but few such measures are available (Goodwin & Driscoll, 1980; Meisels, 1985; Wortham, 1990). They need these measures because good assessment informs teachers about children's developmental status and how children respond to teaching practices. Good measures of child development provide parents with information they can use in rearing their children. They provide parents and the taxpaying public with information on whether their investment in early childhood programs is worth making. Indeed, by mapping out the various dimensions of child development, good measures present an operational definition of goals for the care and education of young children for everyone concerned.

The national Head Start program is under continuing Congressional scrutiny. In the absence of good measures of child development, inappropriate measures may be substituted -- measures that misinform teachers, parents, and taxpayers about the progress of Head Start children and the effectiveness of Head Start programs. Indeed, the promise of early childhood education for children living in poverty was initially framed in terms of its potential effects on tested intellectual performance, although intelligence tests were never intended to measure program outcomes and the effect of early childhood education on tested intellectual performance proved to last no longer than a couple years beyond program completion (Locurto, 1991).

Existing early childhood tests have serious weaknesses in assessing children's development of social competence. They tend to focus on specific academic and physical responses and ignore the broad domains of child initiative, social relations, conversation, and logical skills. Beyond specific tests and types of tests, testing itself may be intrinsically inappropriate for assessing young children. Even a well-designed test is essentially a series of items in each of which a tester makes a demand on a respondent who is supposed to provide the one right answer without assistance -- a tightly prescribed behavioral sequence, virtually scripted in advance. Tests guarantee that children are observed performing various skills by sacrificing the child initiative that is central to good early childhood education. They involve a style of interaction that has few parallels in life, and thus lacks ecological validity. Young children may reject the role of respondent, become fatigued, or simply try to please the adult tester. The idea is to use a benign, unobtrusive process to assess knowledge, but the testing process is neither benign nor unobtrusive because it is foreign to young children's experience. In assessing young children, the principal alternative to testing is systematic observation of children's activities in their day-to-day settings. It is true that observation demands time and effort and that it is hard for observers to achieve the necessary objectivity. But this approach has high ecological validity and presents the minimal intrusion into what children do in early childhood classrooms (Goodwin & Driscoll, 1980). Children's activities naturally integrate all dimensions of child development. Early childhood program outcomes are properly conceived to extend to children's development along intellectual, motivational, social, and physical dimensions.

The High/Scope Educational Research Foundation, an independent nonprofit early childhood research and training organization, developed the Child Observation Record (COR) over the past decade to assess the outcomes of the High/Scope Curriculum, a method of developmentally appropriate early childhood education. Before and during this project, staff rewrote items to increase their clarity and avoid unnecessary jargon, with the goal of making the COR understandable to persons untrained in the High/Scope Curriculum and suitable for use in any early childhood program, regardless of the curriculum model employed. All items, which had from three to seven levels, were standardized to five levels.

The COR is suitable for use in early childhood programs that use the High/Scope Curriculum and those that do not. Through its Training of Trainer projects, High/Scope has trained 1,000 trainers of early childhood teachers, half of them in Head Start, in how to train others to implement the High/Scope Curriculum. An estimated 29% of all Head Start staff have received High/Scope Curriculum training from these trainers (Larner & Schweinhart, 1991). Forty percent of the teachers participating in this study reported that they had had some High/Scope training.

METHOD: Project staff recruited 64 teams of Head Start teachers and assistant teachers and provided them with several days of training in the use of the COR. The project coordinator maintained quality control by reviewing COR practices and providing feedback, a procedure that was crucial to the project's success. To develop the instrument and check its reliability over time, staff collected three rounds of CORs from teachers and assistant teachers. They also collected background information on participants and the McCarthy Scales of Children's Abilities (McCarthy, 1972) on a subsample of 110 children.

Over several months, the teacher writes brief notes describing episodes of young children's behavior in six domains of development: initiative, social relations, creative representation, language and literacy, logic and mathematics, and music and movement. The teacher then uses these notes to classify the child's behavior on 30 five-level COR items representing these domains. For example, the item on expressing choices read as follows, from one to five: Child does not yet express choices to others; Child indicates a desired activity or place of activity by pointing or saying a word; Child indicates a desired activity, place of activity, materials, or playmates with a short sentence; Child indicates with a short sentence how plans will be carried out ("I want to drive the truck on the road"); Child presents detailed descriptions of intended actions ("I want to make a road out of blocks with Sara and drive the truck on it").

Project staff conducted the study in Head Start classes in southeastern Michigan. They recruited seven Head Start agencies and a school district, then recruited 64 teams of teachers and assistant teachers and trained them in the use of the COR. Five teaching teams dropped out the second year, leaving 59 teams. These teaching teams served about 2,500 ethnically diverse children per year: 51% Black, 26% white, 14% Arab, 7% Hispanic, 2% Asian, and 1% Native American. The teaching teams received their initial training in one of four three-day orientation workshops on the COR conducted at convenient locations during August 1989. A year later at the beginning of the project's second year, most attended another one-day training workshop. Project staff also made presentations at various Head Start staff meetings. The project coordinator (McNair) maintained quality control in COR administration by observing the COR practices in the classrooms, reviewing anecdotal notes as they were completed, and scheduling sessions for feedback and additional training. In the fall of 1989, she visited each classroom once, answering individual teacher questions and making specific suggestions about COR procedures. A monthly newsletter was sent out to all participating administrators, teachers, and assistant teachers providing general feedback, suggestions, and encouragement. Head Start education coordinators played a vital role in this process. This type of support was critical to the success of this project.

RESULTS: Means and standard deviations were computed for the three times the COR was completed by teachers in the fall and spring of the 1989-90 school year and the fall of the 1990-91 school year. Mean scores for fall 1989 ranged from 1.9 to 4.2. The means for spring 1990 ranged from 2.2 to 4.8. Most fall 1990 ratings were lower than fall 1989 ratings, with the means for "speaking" and "relating to other children" dropping over one point each, probably because the teaching teams better understood the meanings of the item levels. Correlations between fall 1989 and spring 1990 ratings ranged from .41 to .72.

This project demonstrated the feasibility of carrying out the COR assessment in Head Start programs and what it takes to do so. Training and maintenance of training were crucial. Teachers and assistant teachers must understand the COR procedure and see its value clearly, because it takes time to keep anecdotal records and complete CORs on each child in a class. Staff cooperation and compliance with the assessment approach depends upon agency commitment and whether or not an agency requires its staff to administer other assessments as well. The wholehearted support of each agency's director and education coordinator is crucial to obtaining staff compliance.

The three rounds of COR data completed by teaching teams permitted estimates of reliability or internal consistency of the items in each subscale. For teachers, alpha coefficients of internal consistency were at acceptable levels on all three occasions of measurement, ranging from .66 to .93. The marked increase in internal consistencies from fall 1989 to spring 1990 and again from spring 1990 to fall 1990 suggest that both the instrument revisions and training improved teachers' ability to rate the COR items consistently. The internal consistency of the "representation" subscale improved the most, from .66 to .80.

Observational instruments provide evidence of their objectivity and replicability when multiple observers have a high level of agreement in their ratings, but a high level of agreement can be difficult to achieve in ratings completed by practicing teachers. To address this issue, each teacher and assistant teacher independently of one another completed CORs on 10 children in fall 1989 and another 10 children in fall 1990. This approach capitalized on the team staffing of these classrooms to employ two observers in daily contact with the children they were rating. To foster teamwork, teaching teams worked together to complete CORs on the remaining children.

Pearson product-moment correlations were calculated to estimate the reliability between teachers and assistant teachers who completed CORs independently. In all, 43 teams rated 419 children (11 children fewer than expected due to missing data) in fall 1989; 50 teams rated 484 children in fall 1990. In fall 1989, correlations for subscales varied from .57 to .76, with the lower correlations for the briefer subscales. In fall 1990, correlations between ratings by teachers and ratings by assistant teachers varied from .61 to .72. Correlations of this magnitude are acceptable for basic research and feedback to teachers and parents, but would not justify placements of children in different educational tracks or special classes. COR subscale correlations with age were moderately positive as expected, ranging from .22 to .45. Since the COR is supposed to measure aspects of children's development that are influenced by early childhood education, correlations with age ought to be positive, inasmuch as age represents life experience and

curriculum experience, but modest, inasmuch as genetic maturation is not considered the primary determinant of ratings. Subscale correlations with mothers' education were virtually zero, ranging from .01 to -.11. While school achievement tests correlate highly with mothers' education, the absence of such correlations is in fact desirable, suggesting that the COR scores may be unaffected by children's socioeconomic status.

During the spring of 1990, project staff administered the McCarthy Scales of Children's Abilities (McCarthy, 1972) individually to 110 children in the study, to study the relationships between McCarthy test scores and COR scores. Testers also completed a checklist rating children's behavior based on their observations during the one-hour testing sessions. COR subscale correlations with McCarthy subscales ranged from .27 to .66. The COR language and literacy subscale had the highest correlations with McCarthy subscales, ranging from .53 to .66. The McCarthy perceptual-performance subscale had the highest correlations with COR subscales, ranging from .42 to .66. Similar subscales of the two instruments produced the following correlations: 1) .53 between the COR language and literacy subscale and the McCarthy verbal subscale; 2) .52 between the COR representation subscale and the McCarthy perceptual-performance subscale; 3) .42 between the COR logic and mathematics subscale and the McCarthy quantitative subscale; 4) .37 between the COR movement subscale and the McCarthy motor subscale.

In future years, it will be possible to continue this study to examine the predictive validity of the COR -- that is to say, how well it predicts such measures of school success as achievement test scores and grade placement. If such relationships are demonstrated, the validity and widespread acceptability of measuring child development outcomes would be considerably enhanced, just as the stature of Head Start was considerably enhanced by the long-term findings of High/Scope's Perry Preschool study and similar studies (Berrueta-Clement et al., 1984).

DISCUSSION: The COR, originally designed to be sensitive to a developmentally appropriate curriculum, emerges from this study as a psychometrically acceptable tool for the assessment of child development that is readily available to staff in Head Start and other early childhood programs. A feasible, reliable, valid tool to assess child development will help early childhood educators reconcile their assessment procedures with their intentions and practices. Too often, they experience a strong sense of conflict between what they are trying to do and how they are required to measure their success, not because they are unsuccessful, but because tests sometimes measure relatively unimportant things. The COR was developed with a limited number of items; choices were made to include important items and to exclude less important ones. Music and movement items, for example, include manual coordination and moving to a steady beat, but exclude such common but trivial items as flexing one's foot for no apparent reason.

Instead of current test-driven pressures that narrow early childhood teaching toward inappropriate academic objectives, the COR creates incentives to make early childhood teaching contribute to the broad range of children's development. "Teaching to the test" is an undesirable practice because test items are often inconsequential in themselves, although they may represent important constructs. "Teaching to the COR" is a desirable practice because COR items are inherently important constructs. Even with strong evidence and widespread support for child development as the goal of Head Start and other early childhood programs, it is difficult to implement this goal on a widespread basis, in large part because it is difficult to measure. The COR identifies six dimensions of development measured by 30 five-level items, essentially offering an operational theory of early childhood development. Thus, the COR helps teachers measure children's development and makes it easier for them to seriously embrace the goal of contributing to it.

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Discussion *Joyce Videlock*

I am relatively new to research, but older than I want to tell you to Head Start and assessment in early childhood education. It is from that vantage point that my comments come. The theme today is linkage. Since Monday, the word that keeps coming up over and over again in so many contexts is "linkage" -- from linking research to policy, linking agency to agency, and, of course, my focus here and our focus, linking assessment to intervention. I doubt anyone would say that it is not a good thing to try to link assessment to intervention. Yet there is really a meager database available in this area. Some of the efforts of the presenters here today actually contribute nicely to that database.

I would like to focus on the implementation end of the assessment-intervention linkage. When you begin to work in a community setting, i.e., a real classroom, and you try to actually implement your model, you are faced with a number of issues. One is that of administrative support. There needs to be really good evidence within a program of administrative support in order to try to implement a program innovation involving linkage. For example, an assessment project that teachers will be doing and that is linked to what is happening in the classroom needs strong administrative support.

At the center where I am, we have done some pilot work over the past year, working with some early childhood programs to provide technical assistance to teachers on linking assessment to intervention, i.e., developing ways of collecting continuous progress assessments on their children. This has brought us face to face with some of the difficulties in actually trying to implement a project like that in a preschool setting. It is like trying to jump onto a moving train. You have a program that is in progress with all kinds of things happening, and you are trying to effect some kind of systems change at the same time. Therefore, having administrative support is crucial.

We have seen administrators analyze their overall program in order to make the kinds of changes necessary to be able to institute linkage systems. That may include providing teachers with more planning time, rearranging schedules, giving them permission to drop some of the data collecting methods that they are presently using, etc. We found that the team approach to this is absolutely essential. It is nice to hear about teachers and assistant teachers working together as a team, but we also need to look outside that team as well and bring in program specialists who are associated with the classroom. We often find that the classroom team is operating well, but professionals associated with the team are not as well integrated and may have their own plan or goals. Discipline boundaries also may present problems without the necessary administrative support.

Another point has to do with data collection and intervention planning. It is nice to see approaches that have teachers doing the assessment. The vantage point that I come from often does not recognize that. One of the reasons they do not is that they do not know what to measure. This goes back to the issue of curriculum. I think another reason that tests sometimes measure unimportant things is that we are not very clear about why we are testing. There are many purposes for assessment, anywhere from diagnosis to eligibility determination, which is really different from curriculum-based assessment or assessment for program evaluation. The question has to be asked, "Is it something that is going to help us program plan in a very fine-grained way, or is it something that is going to give us a spot check regarding a child's place in a curriculum two or three times a year?" I really do not view the kinds of assessment that you do two or three times a year as continuous progress assessment. That also reflects my special education vantage point. We have some challenges to face around that issue. As you all know, Head Start provides services to special needs children as part of their mandate. There are many special needs children in Head Start classrooms, and there are all kinds of reporting regulations and tracking and progress accountability guidelines and regulations that are required in serving special needs children. Teachers are going to be faced with even more stringent accountability requirements for those children in addition to the requirements for other children. In order to make it all happen, we are going to have to look at ways to meld those two systems. Maybe this is another link we need to make. The unification and integration of these two systems, assessment of children and tracking of children with special needs, reflects how the early childhood classroom of the future is going to need to look.

Roundtable 215 EARLY INTERVENTION RESEARCH: BUILDING ON LESSONS LEARNED

Chair: **Sarah Greene** ; *Discussant:* **Irving Lazar**

Head Start as Two-Generation Program *Raymond C. Collins*

Head Start is once again in the mainstream of national policy. The Head Start Act provides a foundation for ongoing program expansion and quality improvements. President George Bush and the nation's governors have showcased Head Start as a contributing factor to the achievement of national educational goals (America 2000, 1991). Groups such as the Committee for Economic Development, the National League of Cities, and the Children's Defense Fund have called for universal Head Start. Head Start's potential contribution to school readiness is widely recognized and generally accepted. What is less clearly understood is the full extent of other Head Start benefits, particularly services that are or should be focused on the family. Paradoxically, it is with respect to services directed at parents and other family members that the most exciting Head Start innovations are occurring at the opening of the decade of the 1990s. The Administration for Children, Youth, and Families (ACYF) has launched program initiatives, including family literacy, substance abuse, increasing the employability of parents and other family members, family service centers, and other areas related to family self-sufficiency. ACYF is fostering collaboration with related Federal and state programs, such as the Job Opportunities and Basic Skills Training (JOBS) program and the target cities substance abuse program of the Office for Treatment Improvement (OTI) in the Public Health Service.

A promising starting point for evolving a strategy and conceptual framework for Head Start is provided by the two-generation models that are being analyzed in the context of welfare reform efforts since the passage of the Family Support Act of 1988 that launched JOBS (Smith, Blank & Bond, 1990). These models have a common strategy: "They help families attain economic self-sufficiency through education and job training while also providing other services, such as parenting education and high-quality child care, that support children's healthy development. As two-generation interventions these programs show promise of addressing both immediate and long-term impediments to healthy development and educational success for poor children" (Smith, 1991).

My purpose is to explore the rationale for Head Start as a two-generation program. A two-generation program is herein defined as one that addresses the developmental needs of children within a family support context. Major program goals target parents and other family members as well as one or more focal children.

The discussion begins with the historical focus of Head Start on addressing the needs of children in the context of the family and the community. Next, an approach to developing a conceptual framework for a two-generation program model is described. Finally, suggested next steps for research and evaluation are outlined.

HISTORICAL TRENDS: To some extent, Head Start has always been a two-generation program. The original blueprint for Head Start, developed by a panel of experts in February 1965, called for unprecedented involvement of parents and other family members. During the 1970s, ACYF mounted several demonstration programs to broaden parent involvement and to try out innovative strategies for strengthening families. Home Start, the Child and Family Resource Program (CFRP), and Project Developmental Continuity are among the experimental projects launched during that period (Collins & Kinney, 1989). The home-based model was introduced as an option, and 516 Head Start programs presently include some home-based services (Project Head Start, 1991). In the program performance standards, Head Start programs were required to place greater priority on parent-child interaction and on the parental role in child development and learning.

The 1980s were a period of consolidation for Head Start, as ACYF moved to assimilate and ratify the changes of the prior decade, including a broader role for parents. A pattern of modest budget increases, begun in 1978, led to a slow but steady rise in the number of children served. Enrollment rose from an all time low of 333,000 in 1977 to over 448,000 in 1988 -- a 35% increase. Important as this enrollment growth was to Head Start's stability and popularity, Head Start services failed to keep pace with the dramatic increases in the numbers of children in poverty during that period.

President Bush inaugurated a new era for Head Start with his endorsement of major budget hikes. Support from the Congress and the governors has made it feasible to rethink Head Start's goals. Head Start is coming to be regarded by policymakers and planners as a central feature of program strategies in early education, family literacy, JOBS, substance abuse, health delivery and other family support areas.

APPROACH TO A CONCEPTUAL FRAMEWORK: A viable two-generation strategy must be one that attracts the support of all major stakeholders, including ACYF (and other Federal officials), the Head Start community, child and family advocacy organizations, Congress, and state and local groups that help fund or provide services collaboratively with Head Start. This section outlines five key principles that should be reflected in a two-generation strategy for Head Start.

Build on the existing strengths of the Head Start program: A two-generation program strategy should represent a natural evolution following the major lines of Head Start's development. Earlier program innovations have been successful to the extent that each represented a logical next step in carrying forward the core philosophy and program design conceived by Head Start's founders.

The program has many areas of comparative advantage. Head Start is one of the few institutions that is trusted by the poor and minorities, on the one hand, and local community leadership and other service providers, on the other hand. By virtue of its pluralistic delivery system, Head Start grantees and delegate agencies include community action agencies, city and county government, school systems, religious institutions, Native American tribes, universities and community colleges, and a wide spectrum of other community organizations.

Head Start has a 26-year record of serving nearly 12 million poor and minority children and their families. Roughly one out of two (47%) Head Start families are on AFDC (Aid to Families with Dependent Children) and thereby eligible for other child and family services. The median family income of participants is slightly over $6,000. Two-thirds of children served are minorities. Single parents head 55% of the families. As the onset of sexual activity begins ever earlier, growing numbers of adolescent parents are enrolling children in Head Start (and even larger proportions of teenage parents participate in PCC). Over 75,000 children with professionally diagnosed disabilities are provided special education and related services in Head Start (13.9% of enrollment). Head Start is the largest provider of mainstream services to preschool children with disabilities. Head Start already serves the children and families other social services programs strive desperately to find and recruit.

Head Start's basic program design, devised in the 1960s and refined in the early 1970s, has stood the test of time and requires few modifications. The program performance standards have been used as a model for a good early childhood program by pre-kindergarten programs in the public schools, child care organizations, and by state legislators designing early intervention programs. Similarly, program objectives for parent involvement address the principal aspects of Head Start philosophy: 1) parents as the principal influence in their child's education and development; and 2) opportunities for parent participation in decision making, as classroom volunteers, as paid employees, and in other program capacities. These provisions work. Over 484,000 parents volunteered in Head Start during operating year 1989-90. Parents of current or former Head Start children comprise over one-third (35%) of Head Start staff.

Respond to child and family needs in a holistic fashion: Smith (1991) has identified five program models that employ a two-generation strategy. Some of these and other examples of holistic approaches to child and family needs can be found in Head Start. One approach links Head Start to the JOBS program. Central goals of the Head Start-JOBS collaboration are to: 1) provide extended day child care to Head Start children with parents participating in JOBS education, training, or employment services; and 2) provide comprehensive case management to address the family needs, the child's development, and the mother's successful progress toward

employment. In February 1991, Philadelphia's Head Start program signed a formal agreement with the Philadelphia County Assistance Office spelling out their collaborative program understandings for Head Start-JOBS linkages.

Another approach is Head Start linkages with Even Start, a program administered by the Department of Education. Child Development, Inc., is an example of a Head Start program administering Even Start in collaboration with 25 school districts in western Arkansas. CDI utilizes a home-based model (HIPPY, Home Instruction Program for Preschool Youngsters) for 4-year-olds in Head Start, with a second year of transition while the HIPPY children are in kindergarten. In addition to Head Start comprehensive services, the HIPPY model, and Even Start's mandated areas of early education and family literacy services, the families participate in a demonstration program of home-based adult education, devised by CDI and funded by the state.

Another instance of Head Start's involvement in a two-generation program model is OTI's target cities program. Eight target cities have been funded by OTI to implement substance abuse demand reduction and treatment improvement strategies in coordination with substance abuse treatment providers and other community agencies. For example, Baltimore Substance Abuse Systems, Inc., created to implement the target cities program, is working out a partnership relationship with the local Head Start program to provide a range of substance abuse services to Head Start participants in the context of a comprehensive services approach. In turn, Head Start would extend outreach and provide other complementary services in coordination with the treatment network. OTI and ACYF have collaborated in the development of Head Start's substance abuse strategy, which includes an opportunity for Head Start programs to apply for funds, with a set-aside for the target cities.

While none of the above program models may be totally "holistic" in an ideal sense, each takes giant steps toward that goal. In contrast with narrow, categorical services, each of these approaches recognizes that low income families face a syndrome of interrelated problems. There tends to be a co-presence of poverty, substance abuse, child abuse, unemployment, illiteracy, mental illness, lack of support systems, and other social and economic problems affecting vulnerable children and families. If these issues are tackled one at a time, little progress can be anticipated. Moreover, family stresses could undo the child's gains in the Head Start classroom (or undermine parental efforts to reinforce the benefits of early childhood education).

Formalize collaborations with other Federal, state, and local funding sources: Head Start has a fairly good track record of working with other agencies. Since the 1972 mandate to provide special services to children with disabilities, Head Start programs have collaborated with state and local educational agencies. These partnership relationships have included identifying children with special needs, diagnosing specific disabilities, and arranging appropriate services. Some LEAs and SEAs have used their Federally subsidized resources from the Department of Education to supplement Head Start's budget category for serving handicapped children. Head Start programs are eligible for reimbursement under the Child Care Food Program administered by the Department of Agriculture. USDA pays for breakfasts, snacks, and nutritious lunches for low income children in Head Start and other child care programs. Some Head Start programs and most PCCs cooperate with WIC (Special Supplemental Food Program for Women, Infants, and Children), also administered by USDA. Medicaid, including the Early and Periodic Screening, Diagnosis and Treatment (EPSDT) program, is a major feature of the delivery system for Head Start children and families receiving health services. Medicaid payments do not generally go directly to the Head Start grantee (except for those Head Start programs, such as CDI, that are authorized providers of Medicaid services), but they nonetheless defray health costs that would otherwise have to be supported by the Head Start budget. Services for children with disabilities, the Child Care Food Program, WIC, and Medicaid/EPSDT are long-standing Head Start relationships, begun in the 1970s. No major additions to these partnership arrangements were made during the 1980s. A new pattern of collaboration is emerging as a result of ACYF's recent family support innovations. JOBS and substance abuse linkages could in time leverage substantial resources on behalf of services to Head Start families. The Even Start program has a similar potential (although, to date, relatively few Head Start programs have been included in the Even Start delivery systems of local educational agencies).

These partnerships do not occur by chance. They are typically the result of a shared program strategy coupled with a lot of work by ACYF at the Federal level, local Head Start programs and the other concerned agencies. Federal and state interagency arrangements can provide a useful framework. Some HHS Regional Offices have exercised leadership in setting the stage for collaboration. For example, Region III, which has stewardship of Head Start operations in mid-Atlantic states, took the lead in brokering the Head Start-JOBS linkages in Philadelphia. Signed agreements at the local level are advisable to cement informal working relationships, spell out who does what, and identify cost sharing arrangements.

Develop a kit of program management tools to facilitate family support: In order to plan and manage two-generation approaches, Head Start agencies must have the proper tools. There is a need for technical assistance and program management support in the following areas: child and family needs assessment; family case management; and computerized management information systems. For Head Start to respond to the needs of individual children and the profile of vulnerabilities and strengths of specific families, adequate assessment instruments and knowledge of how to use them is required. The state of the art of child and family needs assessment is uneven, and a local program's capacity to tap the knowledge base is limited.

Child health screening and evaluation is the strongest area, and Head Start has made impressive strides in the delivery of basic medical and dental services to preschoolers. Breakthroughs are being made in screening and diagnostic procedures for children with disabilities. Many Head Start teachers use developmental assessment as at least a partial basis for shaping classroom educational services, often devising their own procedures as a variation on common instruments for preschoolers.

Family support should be the priority area for the development of needs assessment tools. The Model Family Needs Assessment (FNA) or a local variation of that form is used by nearly three-fourths of the Head Start programs to identify social service needs. The FNA profile includes basic demographic information on each family member, and information on health, income, education, employment, housing, and transportation. There are serious limitations, however, on how the family needs assessment tools are used. Many programs do their needs assessment at the beginning of the year (or in the spring and summer before program operations get underway in the fall) as a part of the enrollment process. Low income and minority families are reluctant to provide information about sensitive issues, such as alcohol and other drug abuse, when they have not yet gotten to know the staff. Head Start programs that do ongoing needs assessment and stay in close touch with families during the year report that such sensitive information is picked up as a byproduct of an evolving pattern of family-staff trust and communication.

Better family case management procedures are similarly required. Head Start programs frequently refer families for social services, but with limited follow up or feedback. The combination of incomplete needs assessment and restricted case management puts the burden on other community agencies to identify and respond to the full spectrum of needs of families with multiple problems. Other agencies are quick to acknowledge that they cannot bridge the gap. As a consequence, family needs are dealt with in a fragmentary fashion. The cumulative effect of these halfway measures is that the family is unable to cross the threshold to self-sufficiency.

It must be recognized that Head Start programs are inadequately staffed for case management even if procedures were to be improved. An upgrading of social services staff capacity must occur. A workable family caseload would be in the range of 30-50 families. An interdisciplinary case management approach should be adopted. All staff involved in family support should periodically share information in a joint staffing team setting to take stock of how things are going and to determine next steps. Improved needs assessment and case management will increase the record keeping requirements of local Head Start programs. ACYF has recently launched a project to develop a Head Start Family Information System (HSFIS) that has the potential to serve as the cornerstone of an MIS for a two-generation strategy. HSFIS, managed under contract with Ellsworth Associates, Inc., is being designed as a computerized child and family database with the potential for input and use by local Head Start programs.

Set realistic goals and objectives and assess results systematically: The goal is not for Head Start to become the primary provider of services to families. Rather, the aim is for Head Start to serve as a catalyst to target essential services for children and their families, drawing upon the resources of the community-wide delivery system.

In the future, it should prove feasible to clarify what is expected of all Head Start agencies with regard to extended day or "wrap-around" child care. The preponderance of part-day or double sessions services, and the lack of full-day child care, is universally cited as the number one barrier to Head Start involvement in family support programs, including JOBS and substance abuse. The child care and development block grant and child care grants to states under Title IV-A of the Social Security Act is one avenue to explore (Blank, 1991). Policies and procedures governing the arrangement and reimbursement of child care for Head Start participants who are JOBS clients is a second avenue.

Family health services is another program area that could emerge as a major priority. Three program activities that dovetail with identified national health goals can be highlighted as examples (Klerman, 1991). First, Head Start programs could move immediately to arrange that all younger siblings receive scheduled immunizations. Second Head Start programs could expand prenatal services, through broadened involvement with WIC and other health and nutrition services, to reduce infant mortality rates and the incidence of babies born with low birthweight. Third, Head Start could work in collaboration with Medicaid to insure that each family is linked to a permanent "medical home." The medical home "is available not only while Head Start is in operation but also when Head Start is not in session and after the child has graduated from Head Start" (Pizzo and Chavkin, 1991).

Goals and objectives should be attainable given competing demands on Head Start's budget. A two-generation strategy should not be permitted to derail steady progress toward the twin priorities of quality enhancements and expansion. Head Start funds should be invested prudently to mobilize resources from other funding authorities.

NEXT STEPS IN RESEARCH: Head Start has a blueprint for a research and evaluation effort that could be readily adapted to a two-generation strategy that has already been devised. This plan is contained in the recommendations of the Advisory Panel for the Head Start Evaluation Design Project (Collins, September 1990). The panel took a broad view of Head Start's goals and objectives and developed a research strategy and principles organized around two major questions: Which Head Start practices maximize benefits for children and families with different characteristics under what types of circumstances? How are Head Start gains sustained for children and families after the Head Start experience? Principles endorsed by the panel included recognizing the diversity of Head Start children and families and their community environments. In calling for a broad perspective on child and family outcomes, the panel explicitly recognized that Head Start is a "two generation program that, in addition to the social competence goals for children, addresses goals for parents and other family members as priority outcomes in their own right." The panel report continued: "ACYF's research agenda should give high priority to issues of family functioning, parent involvement in their child's development, family support, and family variables as mediating influences on child functioning." The panel went on to recommend specific research directions, including "the interacting influences of preschool, family and later schooling in mediating the long-term

effects of child and family participation in Head Start." Among the Head Start innovations that were mentioned as candidates for evaluation initiatives, the panel highlighted "family literacy, transition, and job training through the Family Support Act."

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Early Intervention Research: Building on Lessons from the 60s and 70s for Programs in the 90s

J. Ronald Lally, Peter L. Mangione

The late 1960s and early 1970s saw a number of early intervention projects with young children from low-income families (Lazar & Darlington, 1982; Provence & Naylor, 1983; Lally, Mangione, & Honig, 1988; Schweinhart & Weikart, 1980). Longitudinal findings from these studies showed that positive long-term outcomes are possible through early intervention. For example, intervention children exhibited fewer signs of failure in school than control counterparts. Moreover, attention to parent/child and caregiver/child relationships resulted in intervention children having more of a prosocial orientation in later years. Intervention children also experienced fewer and less severe encounters with the criminal justice system than control children.

This paper will discuss the implications of some of the findings from that early work for the planning of intervention programs in the 1990s. The paper contains three sections: 1) a discussion of early intervention findings that suggests the need to study the interaction between gender of participants in early intervention programs and success in school; 2) a discussion of the impact of early intervention on social behavior and delinquency in adolescents and preadolescents; 3) recommendations for current early intervention efforts based on lessons learned from the programs of the 60s and 70s.

In a 10-year follow-up study of the Syracuse University Family Development Research Program (FDRP), which served a low-income and 86% African-American population, Lally and Mangione (1989) reported findings clearly showing intervention girls doing better in school than their controls and no such effect for boys. An analysis of grade report data, mostly for the seventh and eighth grades, indicated that none of the program girls were failing school, whereas 16% of the control girls were found to have failing grade averages. Moreover, 76% of the program girls were performing at a C average or better, while only 47% of the control girls were performing at this level. This difference between program and control girls was statistically significant. When we analyzed grade report data for the boys, no differences resulted between the program and control group.

School attendance data paralleled patterns found in the school grade report data. We were able to obtain school attendance data for four school years (1981-85). Poor school attendance was defined as having 20 or more absences from school, which was a criterion used in another intervention follow-up study (Seitz, Rosenbaum, & Apfel, 1985). The analysis of the first two years of attendance data resulted in no difference between the program and control group, for either girls or boys. In year three, however, 14% of the program girls, as compared to 50% of the control girls, had more than 20 absences. And in year four, none of the program girls had more than 20 absences. In contrast, a significant percentage (30%) of control girls had more than 20 absences. No such differences were found between program and control boys.

Program girls were also rated by teachers as having more positive attitudes toward themselves and other people than control girls. Teachers indicated that program girls had greater achievement in school and better control of their impulses with respect to other people. Teacher ratings showed that program girls were functioning better than control girls in the areas of self-esteem, feelings toward others, control of aggression towards others, and achievement in school-related skills. No significant differences were found between program and control boys.

These types of findings in the area of school success for boys and girls are not isolated to the FDRP longitudinal study. Both Kuno Beller (Beller 1983) and Susan Gray (Gray, 1983) reported similar findings with similar populations. Beller found girls significantly outscoring their controls on measures of motivation, self esteem, and school grades. Gray found program girls significantly higher than their controls in measures of school success and lower in drop out rate. Teacher ratings of the abilities of program girls were also more positive than ratings of controls. No such differences were found by Beller or Gray with boys.

We hypothesize that the experiences children are having in school contribute to these boy-girl differences, possibly reinforcing appropriate behavior in girls and inhibiting it in boys. In the FDRP study both boy and girl program children exhibited superior social-emotional functioning as compared to the control children at 36 months of age while in the program preschool. After leaving the program and starting kindergarten, program children, both boys and girls, continued to score better than control children in the domain of social-emotional functioning. They related more positively toward teachers and peers. During the time they were in first grade, program children continued to behave in positive ways toward other children, but their behavior toward the teacher had changed. Program children, both boys and girls, displayed significantly more positive and negative behavior toward teachers than control children did. Program children sought out teachers through many more negative bids than when in preschool or kindergarten, and were observed to smile and laugh less frequently. Observers hypothesized that the expectations of the children for personalized attention from the teacher were being violated, and their behavior changed accordingly. A number of parents reported that their children were frustrated with their school experiences, with one parent reporting that her son complained that he was not learning anything. It was also reported by a program boy that it was "not cool" to carry books through the neighborhood.

These findings suggest a number of interesting hypotheses: 1) the impact of early intervention is different for boys and girls; 2) the impact of early intervention, is different for boys and girls who participate in certain types of early intervention as reflected in the curriculum of the FDRP, Beller, and Gray programs; 3) boys who participate in early intervention programs are treated differently than girls who participate in early intervention programs once they reach school; 4) boys who participate in certain types of early intervention, as reflected in the curriculum of the FDRP, Beller, and Gray programs, are treated differently once they reach the school than are girls from those programs.

We suggest that as the current round of intervention programs is developed gender be seriously considered. Do early intervention programs differentially prepare boys and girls for school, or is it something else? From our conversations with program families we have come to believe that there is a strong possibility that at least a partial reason for these boy/girl differences are the school and community experiences subsequent to participation in early intervention that boys, particularly African-American boys, go through. These experiences may differ significantly from the experiences of girls. We recommend that the treatment of early intervention graduates by teachers and other school staff and the messages they receive in their neighborhoods and from their peers become serious topics of study. It is hypothesized that the experience of schooling is different for low-income African-American boys and girls. Both the school and neighborhood environment might be more academically limiting on boys than girls. One area where there did not seem to be a differential effect of participation in early intervention on boys and girls was delinquent activity and ratings of social behavior in adolescence and preadolescence. Both boys and girls who participated in early intervention seemed to get into less trouble as preteens and teenagers. Social behavior data and family reports from the FDRP study, the Yale Child Welfare Research Program (Provence & Naylor, 1983), and the Perry Preschool Project (Berrueta-Clement et al., 1984) report similar findings.

What seems to be happening is that early intervention has some type of a positive impact on the personal social behavior of the children. In the Yale study, Victoria SEITZ conducted a 10-year follow-up of the Provence intervention. The average age of children that she followed was 12 1/2. When teachers rated the children on personal/social variables they reported that, when compared to program children, the control boys were more aggressive, more often placed in classrooms for the emotionally disturbed, and more frequently suspended from school. Mothers of control boys reported such problems as stealing, cruelty to animals, and aggressive behavior toward siblings (Seitz, in press).

The Perry Preschool Program had similar findings. They found that at age 19 program children had fewer arrests or charges for criminal behavior and that the crimes charged were less serious. Only 31% of program children, as compared with 51% of control children, were arrested once (Berrueta-Clement, Schweinhart, Barnett, & Weikart, 1987).

In the Syracuse project we found that only 4 out of the 65 program children had been processed as probation cases or detained by the County Probations Department, and that the types of offenses that they committed were relatively minor. Of the 54 control children, 12 had received probation or detention, and the severity of the crimes as greater. Only 6% of program children (n=4), as compared with 22% of control children (n=12), have been processed as probation cases by the County Probations Department. Five of the 12 control cases involve chronic offenders. Control children have committed more serious delinquent acts, including burglary, robbery, physical assault, and sexual assault. Only 6% of the program children (n=4), as compared with 22% of the controls, had been processed for probation or detention by the County Probations Department. There was a difference in cost -- of $186 per child for program children as compared to $1,985 per child for control children -- for probation or detention at age 15.

The implication of these longitudinal findings is striking. Even if it is discovered that the effect of early intervention in the lives of boys is not as powerful in school related activities as is currently thought, the effect is still quite powerful with regard to social and criminal behavior. Current and future early intervention efforts need to be designed so that long range payoff is considered and

outcomes are not judged hastily or narrowly. Outcome measures must range beyond the school door. Many outcome variables besides school success and academic achievement should be considered.

RECOMMENDATIONS: Being able to look back at the intervention strategies that were attempted in the 60s and 70s can be helpful. Both limitations and strengths can be uncovered. Most researchers who conducted the early studies would generally agree with the following recommendations.

An "inoculation" approach to family support (early intervention followed by a complete cessation of services) was less helpful to families and children than continued but less intensive supports. Inoculations do not seem to work. I hope we are past generating research questions such as, "What if we intervened in year 2 instead of year 3 or 4?" and, "What if we start intervention with educationally at-risk children at age 4?" An early intervention program should be designed not as an inoculation but as a first step in a continuing and comprehensive system of supports.

Early intervention efforts should take place with and through already existing agencies in the community rather than stand alone as isolated experiments. The Family Development Research Program that we reported on in this paper does not exist anymore. There is no trace of it in Syracuse, New York. The same can be said for many of the programs of the 60s and 70s. The FDRP operated for 12 years, had internationally visibility, and was judged and cited as a successful social intervention by many. But because it was exclusively funded out of federal research and development monies it never had to be integrated into the social service system of the local community. When the research ended intervention of that type in Syracuse, New York, ended. We must not make these types of mistakes in the future. Make programs part of the local community. As appealing as it is to program designers to stay independent of the local community because programs are much simpler to run and easier to evaluate, the temptation should be resisted. These independent designs do not last. Their impact is experimental only; they do not change the way that the community operates.

Partnerships with schools that will eventually serve children should be established well before children reach the school door. These partnerships should be intended to create continuity for children and ease the transition from the early intervention program to the school. Interventions of the 90s need to establish partnerships with schools and other social agencies early so that a strong linkage is established and that families can easily move from one service system to another. It would be ideal if there was some sort of orchestrated parent involvement that is consistent throughout a young child's life.

To maximize educational and social benefits, intervention should be started early with particular attention paid to the development of the fetus in a drug-free and healthy womb and to the provision of psychological services. At least a small portion of the families served (10-20%) need some type of psychotherapy or family counseling above and beyond the social or educational programs usually conducted. We found that there needs to be an availability of special services, particularly psychotherapeutic services and drug treatment. If you run an education- or health-based home-visit program or provide child care services as your intervention, your staff will be overwhelmed by the complexity of some of the problems that the families present. Staff need to have some type of back-up help. They need to have a support system to augment the normal day-to-day service they provide if the intervention is really to take hold. What often happens in many programs is that staff "spin their wheels" on 10-20% of the families, and program potency gets drained by a focus on families that the staff are not skilled enough to serve. Program support, staff development, and supervision has to be ongoing. One cannot launch a program and leave the workers out there to sink or swim. Attention to their needs, such as the need for augmentation of their efforts by specialized staff, is essential.

Effective early intervention calls for establishing a personal relationship between the intervention team and the families served. Case management and home-based service systems are often well suited for ensuring the establishment of a personal relationship. Schorr (1988) concluded that effective programs are comprehensive and have "staffs with the time and skill to establish relationships based on mutual respect and trust." Schorr uncovered the importance to early intervention research of emotionally supportive relationships of family members with another special adult. Programs should be designed so that someone -- a home visitor, a case manager, a family advocate -- someone that the family trusts is a continuing part of the early intervention.

A non-judgmental analysis of family strengths and practical needs (i.e., nutrition, child care, housing, finances) should form the basis of individualized intervention strategies for families. For example, child care is very often left out of early intervention designs because it is too expensive. Yet it sometimes is just what is needed to turn the key to better family functioning. In the FDRP we found that of all the services provided in the Syracuse program availability of quality child care was the highest item on the list of things liked best when parents were interviewed 10 years after intervention ceased. Seventy-nine percent of parents said that the high quality child care was what helped them the most. One interesting side finding was that no cases of child abuse were reported while our five years of continuous day care from birth to age 5 was available. Abuse started to be reported after the people exited the program at age 5. Child care is important to families. So are many other issues. The practical concerns of families must be addressed and intervention designs constructed flexibly enough so that family issues are addressed.

Single focus interventions are limiting. It became very clear to the FDRP program staff that with low-income/low education families from neighborhoods that put children at risk single focus interventions do not work. Intervention efforts need to be flexible enough to be responsive to changing conditions while at the same time having a clear service focus. Programs from the 60s and 70s

that were cognitively focused only, or dealt only with children and not parents, or dealt only with mother/child interaction, were too narrow.

In an analysis of successful approaches to early intervention, Bronfenbrenner (in Pence, 1988) uncovered three critical features of successful programs: 1) the empowerment of those who are the intended beneficiaries of policy and practice, since they turn out to be the principal agents of change; 2) the importance of discovering and responding to the differing characteristics, needs, and initiatives of program participants, with the program itself behaving as a social organism, accommodating the families served; and 3) a recognition of the impact of perceptions, beliefs, and meanings as well as objectively identified conditions, events, and processes.

We very much agree with these points. They are crucial to the design of early intervention efforts in the nineties. We also feel that the type of approach Bronfenbrenner recommends leads to an unwritten contract between families served and program staff. It is important that those launching early intervention efforts in the 90s realize that they are making serious commitments to people. Keeping those commitments with their clients, funders, and staff is not always easy. Be particularly clear with families and community agencies about research design commitments made, and about the limitations funding places on provision of service. Do not make promises you cannot keep, and keep the promises you make. The trust you build will go a long way to making your program a success.

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Lessons Learned From Community Based Projects *Robert K. Yin, Kathy Zantal-Weiner*

This paper puts forth two sets of lessons from recent experiences with substance abuse prevention. The first set covers findings about successful prevention. The second is about evaluating prevention efforts. The general conclusion is that while a) substance abuse prevention efforts have become more comprehensive and community-based in order to be effective, b) concomitant methods for evaluating these comprehensive and community-based efforts are only still being developed. Further, the needed evaluation developments would be useful to the assessment of all community-based programs, not just those dealing with substance abuse prevention.

Substance abuse prevention may be defined as actions intended to dissuade a nonuser from experimenting with alcohol and other substance abuse -- including the use of tobacco, marijuana, alcohol, and the variety of illicit drugs now on the market. Such actions, however, may be aimed solely at the at-risk individual, or at the individual as well as the social and broader environment within which the individual lives.

Successful prevention programs and community efforts are increasingly targeting both types of actions. This broader strategy is based on a public health model of prevention and differs significantly from prevention models focusing only on the high-risk individual (Albee, 1987). When prevention is aimed at the individual only, the implicit paradigm is a "treatment" paradigm -- based on the assumption that treating an individual with some dosage of prevention will produce the desired outcome. In contrast, the broader prevention models must assume that many important, ultimate outcomes will deal with social groupings and the environment, and not just the individual (Holder & Giesbrecht, 1990; Wittman, 1990).

A broader view of prevention notes the relevance of marketplace factors, laws, the role of the media, law enforcement and school policies, as well as community, parent, peer, and individual factors (OSAP, 1989b). Similarly, an enumeration of the pertinent "risk factors" associated with high-risk individuals reveals that only some of these factors are totally confined to the individual, i.e., intrapersonal factors (Goplerud, 1989; OSAP, 1990b). Other factors involve the individual's relationships with other persons --

interpersonal factors -- and yet other factors deal with the environment -- extrapersonal factors (Goplerud, 1989; OSAP, 1990b). As a result, the successful prevention programs must show an ability to affect all of these three types of factors as ultimate outcomes, and not just individual factors.

Recent research, demonstration, and evaluation results point to five overall findings, given this broader prevention strategy. Much of the information comes from activities supported by the U.S. Office for Substance Abuse Prevention (OSAP), that can be generalized to other prevention programs. First, within schools and communities, successful educational programs are based on some combination of resistance skills training (see Evans, 1976 & 1978; Botvin, 1990), life skills training, or social competence training (e.g., Botvin, 1983; DiCicco et al., 1984; Hopkins et al., 1988; Ellickson & Bell, 1990) -- also characterized sometimes in terms of a "social influence" model (e.g., Hansen, 1990). The overall findings are that youths exposed to social influence models of prevention do later show reduced levels of substance abuse, especially with regard to gateway drugs (cigarettes, alcohol, and marijuana). Not all resistance skills, life skills, or social influence efforts will demonstrate unequivocally positive results. Where the findings are neutral (but not negative), questions must still be asked about differences in implementation fidelity or the quality of the intervention (e.g., Moskowitz et al., 1983; Moskowitz et al., 1984).

Second, a variety of prevention efforts has demonstrated effective ways of dealing with the "significant others" of the at-risk individual (i.e., family, peers, teachers, or counselors). To have an impact on these significant others means that a prevention program is successfully influencing the social environment, i.e., the individual's social fabric. In turn, reviews have shown that programs working with this social fabric are more likely to positively affect the targeted youth and their substance abuse behavior (Swisher, 1990). One major example of this approach is the social development model, focusing on the social bonding between family and school (Hawkins & Weiss, 1985).

Yet a third outcome has been prevention programs' positive effects on community structure and community organizing. The importance of this realm has been repeatedly espoused (e.g., White Paper, 1975; Kelly, 1988; Kumpfer, 1990a & 1990b). Even those working with school systems also give community action the most prominent role (U.S. Department of Education, 1987). Actual experiences in the past few years have now begun to demonstrate the positive outcomes. For instance, individual case studies of programs in Oakland, California (NIDA, 1986), and Baltimore, Maryland (Key, no date), have shown the effects on community organizing in minority-dominated communities. In both of these cases, a newly formed community organization was able to develop activities involving existing agencies (e.g., schools) and volunteers in an effective manner.

Fourth, prevention programs have successfully affected different social and cultural groups, expanding considerably the demonstrable generalizability of various prevention initiatives. Exemplary programs have now been shown in such varied settings as: tribal nations; African-American communities; Hispanic communities, with bilingual components; Asian American communities, also with bi-lingual components; difficult public housing projects; and rural, urban, and suburban areas as well as inner-city neighborhoods. Programs dealing with all phases of program design, staffing and administration, and implementation are reporting successful outcomes when these cultural aspects have been fully confronted. For example, a program aimed at Native American youths transformed the social influence approach to prevention into distinctive bicultural communications; positive results were then reported in an evaluation that used a random assignment design (Schinke et al., 1988). All of these experiences serve only to reinforce the theory that prevention programs must address the broad developmental needs of children and youth -- accounting for the major problems affecting these young people -- because drug abuse does not occur in isolation (White Paper, 1975). Furthermore, prevention efforts also may be influencing cultural and social groups through mass media campaigns. Although the evidence is only fragmentary (e.g., Flay & Sobel, 1983; Hewitt & Blane, 1984; Perry & Jessor, 1985), media campaigns can influence substance abuse attitudes and behavior.

Fifth, prevention programs have successfully demonstrated their ability to deal with emerging drug problems, even when the pace of social change has been rapid. Among the problems related to crack cocaine -- surfacing only in the late 1980s -- was the emergence of a new victim: the infant of a crack-cocaine abusing woman.

Although researchers are still working on definitive information about the developmental problems of drug-exposed babies (e.g., Schneider, Griffith, & Chasnoff, 1989), prevention programs already have been put into place, with some signs of early success. For example, the U.S. Department of Health and Human Services' Office of the Inspector General has already identified 20 model programs worthy of dissemination (Kusserow, 1990), based on its field assessments. All of the programs aimed at reducing substance abuse before and during pregnancy, thereby leading to healthy infants include: community outreach; early intervention; comprehensive services in a single location; case management; and professional training.

Together, these five findings also may point to an important overall pattern: that prevention efforts will be more successful where the program has intensity or breadth. Colloquially, this intensity or breadth has been labeled a program's "dosage." The higher the dosage, the more positive the outcome. Although differences in prevention activities make it impossible to state any criterion or threshold level as a goal, the relationship between dosage and outcome has been demonstrated in at least two ways, the first reflecting the intensity of the dosage and the second reflecting its breadth. Some evaluations have been able to compare the effects of different dosages within similar settings (intensity). An illustrative example comes from a statewide evaluation of school-based prevention efforts (Scheurich, 1990). The evaluators observed that the more involved a school and community were in the effort, the more positive the impact was on student and other drug use. Specific attention was given to "high activity" and "low activity" schools.

The high-activity schools involved substantial commitment to prevention and "an almost unbelievable number of volunteer hours." The low-activity schools involved minimal commitment and episodic efforts. Although both types of schools were shown to have similar baseline conditions, the high-activity schools later demonstrated more positive outcomes than the low-activity schools.

Other findings have shown that the more a prevention program is community- rather than merely school-based, the more positive the outcomes (breadth). School-based programs also have been shown to be more effective when they involve parents and not just students. More comprehensive community efforts may attempt to integrate significant role individuals and role models in the community, spread information more broadly throughout the community, and even influence local policies (Benard, 1990). Moreover, programs that are complex and comprehensive are more likely to succeed if prevention strategies are incrementally implemented (Yin, 1982).

Lessons about prevention evaluation also have begun to surface. For the purpose of laying the groundwork for planning future initiatives, three lessons may be considered important. The first is that current evaluation guidance oversimplifies the process component of evaluations. In part, this is because the process component developed belatedly, compared to the outcome component of evaluations. The traditional framework did not even originally account for the process of implementing the program intervention, focusing solely on individual (or client) outcomes. It appears that the process components of evaluation models have lagged behind in addressing the complications produced by advances in prevention programs.

In practice, the quality of process evaluations has varied. In some prevention evaluations, even though the process component was central to the evaluation, the final evaluation report either relegated it to a minor role or did not try to explain program outcomes in relation to specific program components (e.g., Ellickson & Bell, 1990). In other cases, process evaluation has been used more purposively. For instance, the evaluation of the COMPRI project -- a series of six demonstrations in Alameda County, California -- heavily depends on a process component designed to assist in the diffusion of knowledge and the development and evolution of the programs (Cherry & Wittman, 1990). Evans (1976) integrated outcome information into an intervention study to prevent smoking among high school youths. The study design incorporated information on the self-report rates of cigarette consumption into the intervention and subsequent process evaluation. The information was reported to students at regular intervals in order to change perceptions about the school-wide norms regarding smoking. One of the best examples of an appropriately complex process evaluation is the ongoing evaluation of the Pawtucket Heart Health Program, an 11-year project started in 1980. As part of the evaluation, the evaluators have installed a process evaluation "system" (McGraw et al., 1989), and not just a process evaluation component. The system consists of multiple data collection efforts and recognizes the complexity of a community-wide intervention by having multiple data collection efforts.

A second lesson is that, to evaluate a single but complex prevention program adequately, the use of multiple substudies with multiple data sources may be needed. For instance, Loers and Sarata (1983) distinguished between "program-oriented" and "community-oriented" prevention efforts. A program-oriented effort can have individual or group outcomes as ultimate objectives. The objectives to be assessed will likely focus on individual measures of behavior, attitude, and participation in the program. In contrast, a community-oriented effort has as its main objective changing the framework of community or social rules. Systems change is therefore the ultimate objective, and assessment should focus on such items as instances of community organization and activities, membership and goal of community efforts, the capability of groups for continued development, and legal and policy changes. Both program-oriented and community-oriented substudies would be needed to assess the overall impact of this prevention effort.

Another rationale for multiple substudies is when a prevention program involves multiple units of analysis. Such multiple units of analysis have been formally recognized in prevention programs (Cook, 1985) -- e.g., the individual, family, classroom, school, and entire school system. This view differs from the standard view of prevention involving only individuals as the unit of analysis (e.g., Moskowitz, 1989). Because different units of analysis may all be relevant in the same prevention program, and because different units are unlikely to be accommodated by the same evaluation design, multiple substudies may be needed for more complicated prevention programs. A community-oriented prevention program would clearly represent one example of this more complicated prevention program. Yet another example would be statewide prevention programs, whose evaluation needs have received little attention. The absence of statewide systems evaluations or any guidance about how to do them is intolerable, in face of the possibility that statewide programs could be a relevant and potent approach to prevention (see Anderson, Maypole, & Norris-Henderson, 1987). A single evaluation might be conceived as including multiple substudies, such as service intervention, family process, empowerment process, interagency networking process, and community process studies. Each of these five rows might be a separate study, with its own research design, unit of analysis, and data collection activity. These five assessments also accommodate the conceptualization of a prevention program as having multiple outcomes of interest (Best et al., 1989). For instance, the assessment of social interactions (e.g., "connections") and group norms may be outcomes as important as measurable changes in individual attitudes and behavior. In fact, a deeper transition may be needed, beyond simply expanding from a single- to a multiple-substudy framework. Most prevention evaluations based on the traditional, client-oriented study are also built around a "treatment" design involving individual participants. Thus, the shift to multiple substudies with multiple outcomes may also be a shift to a genuine "prevention" design, recognizing that the complexity of community-based prevention programs inevitably requires multiple substudies with multiple outcomes (Best et al., 1989). This evolution of evaluation study designs could move from a) a target on client outcomes

alone, to b) a generalized appreciation for process conditions, to c) a refined appreciation for process components, and, finally, to d) a recognition that different process components may have their own outcomes and therefore require multiple substudies.

A third lesson is the need to improve the ways in which evaluators collaborate with demonstration project managers. The objective is to make evaluations serve as a management tool for demonstrations, and not to permit the evaluations to become independent pieces of research (Springer, 1988).

The potential problems are raised by the general non-congruence of interests between evaluators -- who come from an academic community with incentives to achieve publishable results -- and demonstration project managers -- who come from a practice community with incentives to serve clients and make a program work. When a community-based program is involved, yet a third party -- the community member -- also becomes involved, and the relationships among all three parties can be unstable and mismatched (Room, 1990). In prevention, a further complication is the need to integrate cultural sensitivities. Both the evaluator and the demonstration project manager must show such sensitivities. Futterman (1990) says: "The development of cultural competence is an essential component in the successful evaluation of substance abuse prevention programs for ethnic populations. Successful evaluations will be those which meet standard methodological criteria . . . and which take into account the specific circumstances and context of the ethnic populations . . . ." The potential insight here is that "cultural competence" may be a critical skill -- equal in importance to the methodological and quantitative skills often considered necessary for evaluators, or to the managerial and substantive skills considered necessary for demonstration project managers. Overall, evaluators and demonstration managers therefore have a considerable challenge. Their collaboration is just now being given increasing attention in the prevention field (e.g., Giesbrecht, 1990). Despite these promising beginnings, more needs to be done about articulating the collaborative process. The process should not only focus on individuals but also include collaboration between evaluation-based institutions and demonstration-based institutions.

Substance abuse prevention efforts have demonstrated successful results, in a variety of ways. The successful strategies call for a comprehensive approach, in which prevention efforts try to deal with both the at-risk individual and the individual's social and physical environment. Evaluation of prevention programs has lagged behind these favorable developments. The traditional evaluation design has been oriented to the at-risk individual. However, the emerging need is to assess multiple prevention components with multiple outcomes. A singular evaluation effort may therefore have to incorporate multiple substudies. The development of such an evaluation strategy -- as well as attention to effective collaboration between researcher and manager -- would be a significant step toward a genuine prevention evaluation paradigm.

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Discussion *Irving Lazar*

I am going to build my comments on the papers into a somewhat larger framework. Head Start is a program of the 60s. It dealt with promises and assumptions and goals of the 60s, and these are the 90s. Most of those assumptions are no longer valid. The way Head Start is constructed is no longer valid; its relationship to the rest of society is no longer valid. First of all, the administrative and organizational structure of Head Start was dictated originally by the community action programs, Dick Boone, and a social worker named Sandy Kravitz. It was mandated to be part of CAP agencies. In the 60s, the Establishment was the enemy. The schools, the social agencies, anyone over 30, and anyone with a degree were the enemies. So Head Start was protected by isolating it from the community and making it accountable only to Washington. And there it stands today, in splendid isolation from its communities, with no accountability to its local people, its local agencies, its state government, its elected officials, protecting its own turf beautifully and refusing to collaborate in many instances with anybody else.

Head Start is highly variable, and so there are Head Start agencies of all kinds that have all kinds of relationships. I am talking about most of the ones I have seen -- and I have seen lots of them, but I am not sure that is most of them. I know of no studies of the administrative structures of Head Start and their relationship to other agencies. I do know that many of them are the sole source of support of an aging organizational grandfather called the Community Action Agency, which no longer has any functional purpose in modern cities, except to be supported.

The Establishment was the enemy; but it no longer is. All of the action, the innovation, the growth of social programs in the United States are being initiated at city and state levels. The withdrawal of the federal government from any meaningful or creative role in program development or social services and the conversion of federal money to essentially unrestricted block grants really has removed the federal government from any creative program development. Program development and innovation and invention is now local. And unless Head Start becomes part of that local scene it will become irrelevant, and will be swallowed up by somebody. There are a lot of sharks out there looking for the money. As states and cities move toward the reorganization of services to focus on the family as the unit of service and the creation of unified family resource programs, Head Start's administrative isolation is both an anomaly and a barrier to the application of our new knowledge about the role of parents and community in the child's development.

The ideas of integration of service and comprehensive service to children really first emerged through Head Start. They are not new. Hearing about two generation programs as though this was something new is really surprising. The original notion of Head Start was that it was a comprehensive program for the entire family. It required family involvement. It provided medical and mental health and social service, as well as educational components. It was built into the original plan that there be a connection of these programs in poor neighborhoods with the larger community through the recruitment of middle class volunteers who would work in the Head Start agencies.

The middle class volunteers were chased off right away, because they could be replaced with local folks you could pay. The psychologists were chased off next. I was secretary of the Los Angeles Society of Clinical Psychologists back in the mid-1960s. We offered to provide free psychological and diagnostic services to all of the Head Start agencies in L.A. We were told that the only thing they wanted from us was to have us train, over a weekend, local parents to administer and interpret tests. They did not want us as professionals. This was part of making jobs and not trusting folks with degrees. For the most part, Head Start did not provide social or mental health services worth anything. Although, as many point out, they are really essential. Any future comprehensive family service system has got to include those kinds of services.

I do not know of any research examining the relationship of the administrative structure of Head Start to the effectiveness of its services. We hear at this meeting of some Head Starts that are working well with local schools and agencies. I also know of many Head Start agencies refusing to collaborate in any activity designed to integrate Head Start services with other community services, even when they cannot provide the services themselves.

Just as Head Start played a central role in alerting the nation to the needs of the very young child, so now should it become the laboratory for the development of models of comprehensive services for families. Both the Family Resource Development Centers and the Home Start demonstrations of the 1970s began the task of defining this new kind of service. Both of those demonstrations faded away because Head Start could not do the job alone, and states and communities were still locked into categorical service programs. Now that the states are ready to experiment with family-based comprehensive services, many Head Start organizations have locked their doors to collaborative work. The still meager mechanisms for sharing resources are often resisted by both community administrators and CAP administrators. If Head Start does not find ways to collaborate and to meet community needs, it inevitably will be replaced. Collaboration is not going to be possible until Head Start rejoins the community agencies and stops being an organizational and political isolate.

Four important decisions need to be made if tomorrow's research on Head Start is to effectively use and improve our knowledge of children and their families. First of all, a significant portion of the new expansion funds should go to types of organizations which have not been the usual sponsors of Head Start. These could include public agencies as well as private non-

profits, and should include social service agencies, exceptional children's organizations, community mental health centers, day care resource programs, family resource centers, and senior citizens groups. Only by having a wide variety of organizations and administrative structures can we learn what works and for whom it works. Recruiting these organizations will be difficult, and should not be assigned to personnel committed to the existing administrative arrangements. Similarly, such organizations will need to be free to define their own ways of meeting such Head Start goals as parental involvement and citizen participation. On the other hand, Head Start must have the guts to refuse to continue to fund agencies that insist on maintaining isolation from the rest of the community.

Secondly, while the idea of comprehensive family-based service is now widely accepted, translations of that concept into operations are very rare, and many so labeled are simply new names for traditional case work. In a sense, we need to reinvent a combination of the 19th-century settlement house and the Swedish together center. Long term grants to develop such new programs in typical communities need to be established as development sites of this concept. There are new models being developed across the country. They need to be supported by Head Starts. Head Start needs to take leadership in support of the family service system. They need to be developed along with a commitment to collaboration, but be free from the dead hand of established bureaucracies, including the CAP. A few states, such as Minnesota and Hawaii, are experimenting with such new structures, and Head Start ought to be supporting those efforts. Indeed, in both of those states the existing Head Start agencies have held back from participation, apparently fearful of their own autonomy and turf.

Third, while Head Start will need to continue studies of the children themselves, such studies need to reflect the sociological and ecological understandings of the last two decades, and be imbedded in studies of the interaction of the children with other family members, and in turn the family's interaction with the community. This will mean that Head Start research itself can no longer be the province of developmental psychologists. We have got to open the doors to all of the sciences concerned with the human condition. This task, too, cannot be left to the persons with a vested interest in the current monopolies.

And fourth, Head Start and Children's Bureau money has to become discretionary, removed from the consolidated solicitation that comes out every year and not be used to contract research. Let the contract firms go bid on Star Wars and other unimportant things. Let us put children back in the hands of people who care about children. Let us get rid of the notion that Head Start was a deficit model, that we finally convinced people that the only thing our children might be missing is the machine that makes money. Head Start is not a preventive program. Children learn, and they socialize, regardless of what we do or do not do. Head Start is a value-imposition program. Let's not kid ourselves about it. We are socializing children to a particular view of society. We are socializing them to a set of values that includes academic learning as a valuable activity. The reason that all early intervention programs are effective -- there is no magic in any of them -- is because what gets changed is how the child and the parents see the activity of learning and the increased valuing of the learning activity itself.

Ordinary preschools are just as effective as fancy ones. Quality has become a code word either for marketing or for elite systems. But they all work. The reason they all work is not that they inoculate children or teach them anything particular in terms of content. What they teach them is that learning can be fun and exciting and that discovery is a worthwhile activity. What it teaches the parents is that their children are capable of accomplishments. So what we have in early intervention Head Start is a way of socializing people to what we consider to be successful adaptation.

Demonstrations have done very little to affect program content in Head Start. We have had a lot of inexpensive ones. Home Start and Health Start and the Family Resource Development Centers and Parent/Child Centers -- most of them have gone nowhere! The only justification for demonstrations is the evaluation. If a demonstration cannot stick to its protocol, then you shut it down or you change its administrators. You do not change the evaluation. You do not run the evaluation for the demonstration; you run the demonstration for the evaluation, because the evaluations will teach you something that you can use in the future! Unfortunately, most demonstrations assume a life of their own. And they go on, regardless of whether they are useful or not. The parent/child centers are coming back to life. The first evaluation in 1968 demonstrated that they were not a very good way to spend money, so they commissioned a second, which demonstrated they were not a good way to spend money. Then, of the original 36, they selected the 12 that seemed to be doing the best, and they called them parent/child development centers. There was a new evaluation, and, at a cost of maybe $10,000 or $12,000 a child, they got something.

The programs for infants and mothers with young infants are certainly worthwhile activities, but that model really needs to be redone, not revived! There are a few of them around, and there are a few of the others still around. The demonstrations really become institutionalized too rapidly, but their purpose is valuable and necessary. Unfortunately the demonstrations of the 80s have been mostly trivial and mainly a waste of time. They have been too small in scope and too poorly funded to demonstrate anything. The last thing I want to do is remind you that academics do not do evaluations or design them. Evaluations are designed by Washington bureaucrats. They are conducted by the beltway bandits, and their goal is not the publication of journal articles. Their goal is the next contract. It is part of the reason why I would stop supporting evaluations through contract. What contract research has done is provide a basis for supporting policy decisions already made.

AUDIENCE DISCUSSION

One audience member took exception to Lazar's statement that Head Start is disconnected from the community. As a former Head Start employee, he sees Head Start as one of the most interconnected programs in the community to ever come out of

Washington. Lazar agreed that Head Start may be community based, but in his experiences around the country he found that Head Start leaders have created obstacles in local projects. He did concede that he also had experiences in which Head Start was a wonderful collaborator. He feels that the variability is so great that researchers should look across the country to find out where Head Starts have become part of their community and where they are holding back to protect their autonomy. There was agreement on how critical this issue is. The same point was addressed by another audience member who shared her recent experience while conducting a nationwide study on collaborations. She found that things have changed dramatically over the past two or three years. There is currently a remarkable push within Head Start programs for collaborations. Head Start, however, perceived itself to be more imbedded within the child care and early childhood education communities than these communities viewed Head Start.

Another issue raised was whether separate classes should exist for Head Start and state-funded children. There was some disagreement as to whether this separation was actually happening, but there was agreement that methods of integrating the children into the same programs, while finding a way to keep the funding separate, should be found. In terms of further research, it was felt that more controversial hypotheses needed to be explored and better ways of disseminating information needed to be found. It was felt that the research community does not always share a finding that is uncongenial with what is in the interest of Head Start. The same is true within the Head Start community -- good news anecdotes travel rapidly while bad news anecdotes then to circulate in tighter circles.

Roundtable 216 DESIGNING EVALUATIONS OF TWO-GENERATION PROGRAMS

Chair/Discussant: **Raymond Collins**; *Overview:* **Sheila Smith**; *Presenters:* **Robert Granger, Jean Layzer, Kristin Moore, Christine Ross**

Overview *Sheila Smith*

I would like to give you a brief overview of this session. Our panelists are going to talk about a set of studies that represent, in many ways, a very significant advance in intervention research. First of all, the programs being evaluated are very different from most previous interventions that target low-income families with young children. As you know, early childhood programs have traditionally focused on child development, parenting education, and family support services, but they typically have not offered much assistance in helping parents move out of poverty. At the same time, most welfare-to-work programs have focused only on adult employability, and have paid little attention to children's health and developmental needs.

The interventions you will be hearing about are beginning to integrate adult welfare-to-work and child development services. We have been using the term "two-generation program" to refer to this kind of intervention in a generic sense. What is promising about a two-generation intervention strategy is its potential for reducing both immediate and long-term risk factors in children's lives. With services like high quality child care and preventative health care, two-generation programs can provide immediate supports for children's development. But at the same time they would be strengthening important family resources, as related to improvement in parent education levels, employment status, and family income. From everything we know, these resources are key to sustaining children's early gains and promoting longer-lasting benefits for more children. At FCD, a large part of our program has been focused on welfare reform and we are beginning to see opportunities for scaling up two-generation programs by coordinating them with JOBS, the welfare-to-work program being implemented now under the Family Support Act.

The studies you will hear about today also represent an advance in the scope of their investigations. Outcome measures span different domains of child development, parenting behavior, family functioning, and parent education gains and employability. Most of the studies are also trying to identify important pathways of program influence and differential program effects for different kinds of families. As you would expect, given the complexity of the interventions and the questions being addressed, all of the studies have faced new challenges in research design and methods, and most of these are very relevant to a Head Start research agenda. What we would like to do in this session is to provide a general introduction to these studies and to some of these research challenges. We would also like to use the session to begin a dialogue about possible collaborations between these projects and child development researchers who may be less experienced in working with large-scale studies. The collaboration possibilities include trying out some of the new measures developed for these studies in different settings, carrying out embedded child development studies within the larger studies to look more closely at family change processes, and secondary data analyses. Some of these things are beginning to happen and there may be ongoing opportunities that vary from study to study. I hope the session might open the door to some continuing discussions with the project researchers.

The Family Support Act and the Jobs Evaluation *Kristin A. Moore, Nicholas Zill, Martha Zaslow, Ellen Walpow*

In October of 1988, Congress passed the Family Support Act with the following goal: to revise the AFDC program to emphasize work, child support, and family benefits; to amend title IV of the Social Security Act to encourage and assist needy children and parents under the new program to obtain the education, training, and employment needed to avoid long-term welfare

dependence; and to make other necessary improvements to assure that the new program will be more effective in achieving its objectives (Public Law 100-485, October 3, 1988, STAT. 2343).

The Family Support Act makes numerous changes in the AFDC program and in the Child Support Enforcement program. The intent of these changes is that public assistance should be a means for helping parents move from welfare dependency to self-sufficiency, rather than a source of long-term support for indigent families. Self-sufficiency is to be attained through the paid employment of welfare parents, including those with young children, and through the establishment and enforcement of the child support obligations of absent parents.

The law creates a new program of education, training, and employment-related services for AFDC recipients: the Job Opportunities and Basic Skills Training program, or JOBS. In addition, one component of the Family Support legislation requires an evaluation of the impact of the JOBS program. This evaluation is being funded by the Family Support Administration and the Office of the Assistant Secretary for Planning and Evaluation, DHHS. The government held a competition to decide who should conduct this large and lengthy evaluation, and the award was made October 1, 1989, to the Manpower Demonstration Research Corporation (MDRC) and its sub-contractor, Child Trends. MDRC has overall charge of designing and implementing the evaluation. Child Trends has the responsibility for designing the components of the evaluation that focus on the children of AFDC mothers. JOBS was to have been implemented by the states by October 1, 1990, so the process of site selection, study design, and instrument selection has been moving forward rapidly during the past year.

The JOBS evaluation will contain three main study areas: an impact analysis, an implementation and process study, and a benefit-cost analysis. Other analyses, such as studies of performance standards, will also be conducted. At present, the design of the evaluation is being reviewed by the Department of Health and Human Services. After review and revision, the design will be submitted to OMB for review. The project described here reflects the current status of the design, which may or may not change as a result of the review process.

As currently planned, the study will examine the effects of various JOBS program approaches on individuals' employment status and earnings levels, receipt and amount of AFDC payments, income levels, and educational attainment, in up to 10 sites, and on literacy, basic mathematics achievement, and the development of children in 3 of the 10 sites.

Overall, the JOBS evaluation will involve approximately 48,000 people randomly assigned to control or program-treatment groups. Through administrative records, data will be collected on the characteristics of all of these 48,000 individuals at baseline, allowing the researchers to identify some broad subgroups. For subsets of these individuals, in two to three sites, more detailed baseline information will be collected from the survey of sample members' attitudes at baseline that could be related to JOBS participation and subsequent employment and welfare behavior, basic skills (reading and math) tests, a survey tracking form to be used to facilitate contact with sample members for two- and five-year follow-up surveys, and an in-home survey providing detailed baseline information about parents of preschool-age children and their children.

A variety of data sources will also be used to measure outcomes for the impact analysis, and the study of children and families will benefit from the data collected in the other components of the study. Administrative records will be accessed, for the entire 48,000-member sample, to ascertain the impacts of various JOBS approaches on individuals' patterns of employment, earnings, and welfare receipt for up to five years after they enter the study. In addition, in the three sites where detailed baseline data are to be collected, follow-up surveys will be conducted.

One portion of this survey effort will focus on mothers whose youngest child is aged 3 to 5. These mother-child pairs represent an important and interesting subgroup that warrants the collection of special data and analysis. This portion of the overall study is referred to as the "Child and Family Study."

Among women eligible for participation in JOBS, 2,570 mothers of children aged 3 to 5 will be selected in two or three urban sites. These are the mother-child pairs who will be the primary focus of the child and family study, which focuses on a subgroup of interest within the larger study.

Half of the mothers will be randomly assigned to the experimental group (Es) that will participate in JOBS. The other half will constitute a control group (Cs) that will not participate in JOBS. Women in the control group will be free to seek education or job training on their own, but not from JOBS. As is true for all control group members, they will be eligible to receive JOBS-funded child care services if they desire, but they will have to locate employment and apply for child care on their own initiative.

Data will be collected for all mothers in both the experimental and the control groups and one randomly selected 3- to 5-year-old child in each household. As with other participants in the evaluation, basic demographic and work/welfare history data will be provided by the JOBS intake worker on a "Standard Client Characteristics" form. In addition, all Es and Cs will take a literacy test and complete a brief "Private Opinion Survey," officially entitled the "Participation Factors and Attitudes Survey," which focuses on attitudes toward work, welfare, training, and child care, as well as feelings of depression and mastery.

Mothers will also be personally interviewed, and child assessments will be conducted with the children. These interviews will be conducted in the home during a baseline interview immediately after random assignment, two years after random assignment, and five years after random assignment. At baseline, due to budgetary constraints, it is proposed that interviews be conducted with only 600 mothers. However, the full sample will be tracked, and all sample members will be contacted for the two-year in-person follow-

up and the five-year telephone follow-up. It is anticipated that data will be collected from 1,800 mother-child pairs at the time of the five-year follow-up.

It is anticipated that funding from the Department of Education will make it possible to collect data from the schools attended by the children on the types of educational programs they receive, on the children's achievement, and on attendance and behavior in the school setting.

The two goals of the Child and Family Study are to examine whether changes that occur in the lives of mothers who are subject to the JOBS mandate have effects on the well-being of their preschool children and how the interaction between the mother and child affects mother's participation in JOBS. The effects on children are important to study because the JOBS program, with its emphasis on the provision of education, training, and support services to less job-ready AFDC recipients, represents a new policy, particularly for mothers of preschool children. The effects of such an intervention on the social and emotional well-being of mothers and the functioning of families is not known. The child and family component of the overall study could be viewed as exploratory. Researchers and policy makers need not only to understand whether such effects occur, but for whom they occur, whether effects are positive or negative or both, which outcomes for which effects are found, and the factors underlying any effects that are found. Thus, it is not presumed that any uniform type of effect or direction of effect will occur.

The primary goal is to identify whether outcomes differ for children of experimental group mothers compared with children of control group mothers. However, control/experimental group differences will also be examined for important subgroups, such as the children of long-term welfare recipients, mothers who are opposed to maternal employment, minority mothers, low-ability mothers, and depressed mothers. In addition, analyses will examine the paths of influence by which JOBS participation may affect children, for example, changes in maternal education and achievement, increased self-esteem and life satisfaction, or higher incomes. Understanding the processes underlying effects for children can inform policy makers and service providers who seek to simultaneously foster economic independence for families and positive development for children.

Child and family circumstances are known to have strong associations with women's labor-force participation in the larger society. Therefore, it is likely that child and family variables will affect the extent and success of maternal participation in JOBS. Thus, the data collected should shed light on maternal outcomes as well as child outcomes. This presumption that intergenerational influences flow in both directions underlies an expanding body of ongoing and planned research.

Topics which are proposed to be covered in the baseline data collection include: demographic characteristics; education and work history; mother's family background; mother's marriage and cohabitation history, household structure and social support; mother's fertility history and intentions; attitudes regarding employment, welfare, and parenthood; mother's physical health, psychological well-being and sense of personal control; mother's substance use; neighborhood characteristics; child's physical health; child's contact with biological father; child's siblings; parent-child relationships; childrearing practices; child's social development, emotional well-being and behavior problems; and child's cognitive ability/school readiness. This is the design proposed, and may change as a result of review by DHHS and OMB.

The Expanded Child Care Options (ECCO) Demonstration *Christine Ross*

The Expanded Child Care Options (ECCO) Demonstration was conceived by the Rockefeller Foundation to test the effects of long-term child care assistance and higher-quality child care on low-income parents and their children. ECCO will be targeted at two groups of families with very young children (under age 3): families receiving Aid to Families with Dependent Children (AFDC) and low-income working parents at risk of receiving AFDC because of child care expenses. The Demonstration will test the effects of two levels of child care assistance. The first level of support is continuous child care subsidies that would last from the time the family enrolls in the Demonstration until the youngest child no longer qualifies for a subsidy. This level of commitment is greater than can be offered under the FSA, but is one that is permitted under the At-Risk and CCDBG programs. The second level of support would supplement the offer of continuous child care assistance with enhanced-quality child care--care that is developed by the Demonstration in community-based centers and family day care homes. These levels of child care support are expected to help sustain the economic self-sufficiency of low-income families and to enhance the cognitive, social, and emotional development of their children. The evaluation of the ECCO Demonstration will measure the impacts of expanded child care support on parents and their children over two decades, and will test whether the benefits of such support--to parents, children, and society--outweigh the costs of providing it. This paper describes the design of the ECCO Demonstration and the 20-year evaluation plan, and it concludes with suggestions of how the ECCO Demonstration and evaluation could inform Head Start policy.

DESIGN: The ECCO Demonstration is designed to test the effects of child care support on low-income families who have young children, and will be implemented in two to four urban sites. Families that enroll in the Demonstration must have at least one child 36 months of age or younger, since these families will need child care for a relatively long period and thus will be affected to the greatest extent by child care interventions. Families enrolled in the Demonstration will be assigned randomly to one of three groups. Each group will receive a different level of child care services:

Group 1 -- Available Child Care. Individuals assigned to Group 1 will be offered the basic programs and funding options that were actually available in the community before implementation of the At-Risk and CCDBG programs. The At-Risk and CCDBG

subsidies are not entitlements to individuals, and the need for such subsidies is likely to be greater than the availability of funds. Families assigned to this group may use all other services and programs available in the community, however, including information and referral, SSBG subsidies, Head Start, and the child care support offered under the Family Support Act. This group will serve as the control group with which the other two levels of services will be compared. Group 2--Continuous Child Care. Individuals assigned to Group 2 will be offered continuous child care subsidies for work-related child care expenses for all children younger than age 13 (and for older children as permitted by federal program rules), at the prevailing state and local program rates. Families can receive the subsidies as long as the mothers (or the parents, in two-parent families) remain active in the labor force and continue to meet all other program conditions. This option is fully consistent with the goals of the new At-Risk and CCDBG programs.

Group 3--Enhanced Child Care. Individuals assigned to Group 3 will be offered continuous child care subsidies of the same duration as will be offered to those in Group 2, but these families will be educated about the advantages of and encouraged to use specially designated enhanced-quality child care providers. Along with state and local child care officials, ECCO staff will develop a local supply of enhanced-quality child care for the Demonstration by providing training and technical assistance for selected centers and family day care providers to help them meet standards that are generally accepted by child development professionals. The subsidy level for this group will be substantially higher than is available to Group 2 in order to compensate for the higher cost of such care, and to ensure that the cost to the family of enhanced-quality child care is the same as for any other type of care. To support and reinforce the effects of enhanced-quality child care, parents will be invited to participate in parenting workshops and other forums designed to enhance the quality of their interaction with their children. They will also receive assistance in accessing a broad array of community-based support services.

These three levels of child care services progressively broaden the child care options available to low-income families. Families assigned to Group 2 will receive child care subsidies that will make more child care options affordable. Families assigned to Group 3 will be offered child care of higher quality than they could generally find in their neighborhoods and at prevailing child care subsidy rates.

EVALUATION: The child care services offered by the ECCO Demonstration--continuous subsidies for work-related child care expenses and enhanced-quality child care--are expected to affect the child care choices of mothers. In particular, we expect that mothers who receive continuous child care subsidies will maintain stable child care arrangements, and, as they learn more about child care, they will choose higher-quality arrangements over time. We expect that the quality of the enhanced-quality child care used by families in Group 3 will be higher on average than the quality of the child care available to mothers in the other two groups. The greater continuity, reliability, and quality of child care is expected to provide stronger support for the mothers' employment activities and thus enhance their economic outcomes. Higher-quality, stable child care is also expected to improve developmental outcomes for children.

In addition to the impacts of the child care services on mothers and children through their child care choices, ECCO child care services are also likely to have additional direct impacts on mothers. Parenting workshops and other forms of support will help Group 3 mothers manage their work and family responsibilities more effectively, thereby leading to improved maternal employment and psychological outcomes. These services should also influence children's outcomes indirectly, since mothers may learn more about child development, become more responsive to their children, and learn to spend their increased income more effectively on enhancing the family's nutrition and health care, and the educational environment of the home.

Maternal Outcomes: The ECCO evaluation of maternal outcomes will measure the impacts of the Demonstration on a broad range of outcomes for mothers.

Economic self-sufficiency: employment, earnings, welfare program participation, and education and training program participation

Child care choices: quantity of child care, types of providers chosen, the reliability, continuity, and quality of care, and satisfaction with care

Social and psychological well-being: social support, stress and depression, and relationships with other adults

Parenting skills and the home environment: knowledge of child development, parent-child relationships, child abuse or neglect, quality of the home environment, and household formation

Health status and health care: health insurance coverage, health care utilization, and substance use

Child Outcomes: The ECCO evaluation of child outcomes will measure the impacts of the Demonstration on children's development in the short-, medium-, and long-term.

Preschool-age assessments: school readiness, behavioral problems, self-regulation, prosocial behavior, self-concept, and health status

School-age assessments: school performance and achievement, behavioral problems, delinquency, self-concept, peer relationships, and health status

Young adult assessments: educational attainment and aspirations, literacy skills, employment experience and aspirations, depression, substance use, social relationships, family formation, and health status

The ECCO Demonstration services--continuous subsidies for work-related child care expenses and enhanced-quality child care--are likely to influence the quality of child care arrangements chosen by mothers, but will not guarantee particular child care choices. Thus, while the average quality of child care is likely to vary systematically across Demonstration groups, the quality of child care settings within each group is also likely to vary. We will measure the extent to which the average quality of child care varies across Demonstration groups, and assess differences in the nonmaternal child care settings used by the groups of families in the Demonstration. We will assess the full range of nonmaternal child care settings at three points--at approximately 6 months after enrollment, to describe the initial choices of child care, and again at 18 and 36 months after enrollment, to examine how quality changes over time. The information from these assessments may also enable us to determine the features of child care settings that are associated most closely with children's developmental outcomes.

IMPLICATIONS FOR HEAD START POLICY: Enhanced-quality child care has been designed to offer both employment support to parents and comprehensive early child care and education to children. Enhanced-quality center and family child care environments will be designed to enable children to develop cognitively, socially, physically, and emotionally, and, in a manner appropriate to their age and stage of development, to attain a level of educational and social proficiency. The child care environments will offer appropriate and varied equipment, materials, and activities designed to support and facilitate learning and development. In addition, the enhanced-quality child care setting will offer an opportunity to link the child and the family with appropriate social services. Regular contact between parents and providers, and the relationship of trust which they build will enable knowledgeable providers to facilitate supportive services to families in a timely manner to avert problems and thus to support the child's development and the family's efforts to becom self-sufficient. Parents will be actively involved in the educational processes of their children, but this and all other features of enhanced-quality child care have been developed with an understanding of the time constraints faced by working parents.

Major goals of ECCO's enhanced-quality child care programs--to provide developmental child care to prepare children for school and comprehensive services to support children and families--are consistent with the goals of Head Start programs. However, enhanced-quality child care programs are also designed to support the employment activities of parents. Enhanced-quality child care meets this goal by offering full-day, full-year child care, by serving infants and toddlers, and by balancing the need for parent involvement against the time constraints of working parents. Some Head Start programs have begun to move in the direction of serving younger children (through the Parent-Child Centers), but Head Start typically does not offer full-day, full-year services that would support working parents. The research results from ECCO could thus address the question of the feasibility and desirability of extending Head Start to serve working mothers. In addition, because the ECCO research plan focuses on a full array of developmental outcomes for children as well as on outcomes for the family, the scope of the research is consistent with the recommendations of the Advisory Panel for the Head Start Evaluation Design Project for future Head Start research and evaluation.

SYMPOSIA

Symposium 401 SOCIOCULTURAL INFLUENCES ON EARLY MATHEMATICAL COGNITION

Chair: **Alice Klein**; *Discussant:* **Herbert Ginsburg**

Economic and Cultural Influences on Early Mathematical Development *Prentice Starkey, Alice Klein*

Data from state and national assessments of academic achievement have revealed differences in students' mathematics achievement that are associated with socioeconomic status and ethnicity (e.g., Haycock & Navarro, 1988; Office of Educational Research and Improvement, 1985-86). Differences are pronounced in the high school grades (e.g., Dorsey, Mullis, Lindquist, & Chambers, 1988). In California, for example, the mathematics achievement of African-American and Hispanic high school seniors, many of whom are from poor families, lags approximately three years behind that of Caucasian and Asian-American seniors (Haycock & Navarro, 1988). Level of parental education, a variable that approximates familial socioeconomic status(SES), is positively correlated with mathematics achievement: the mathematics achievement of children whose parents are college educated far surpasses that of children whose parents did not complete high school (Haycock & Navarro, 1988). Since the average educational level of African-American and Hispanic parents is lower than that of Caucasian and Asian-American parents, ethnic differences in mathematics achievement are attributable to SES differences.

We will address the following issues in order to understand how the socioeconomic context can affect mathematics achievement in children. The first issue concerns the age at which SES-related differences in mathematics achievement first emerge. The second issue concerns the nature and extent of low- and middle-SES children's mathematical abilities prior to entry into kindergarten. The third issue examines the expectations and practices both at home and at school that can influence the development of mathematical abilities during early childhood.

We will begin with the issue of when SES-related differences in mathematics achievement first emerge. Research indicates that differences emerge early. Entwisle & Alexander (1990) examined the mathematical competence of a large sample of children entering first grade. African-American and Caucasian children's test scores on math subtests of the California Achievement Test were compared. Differences in mathematical reasoning favoring Caucasians were revealed; however, the average level of SES of the African-American sample was lower than that of the Caucasian sample. Therefore, the math achievement differences can be attributed to SES differences.

SES-related differences in mathematical abilities of 4-year-old children have been observed by several investigators (Kirk, Hunt, & Volkmar, 1975; Ginsburg & Russell, 1981; Saxe, Guberman, & Gearhart, 1987). No significant ethnic differences between low-or middle-SES African-American and Caucasian children have been found at this age (Kirk et al., 1975; Ginsburg & Russell, 1981). We are aware of only one study (Saxe et al., 1987) that has examined the numerical abilities of children under four years of age. These investigators observed differences between 4-year-olds, but no differences between 2-year-olds, from working class versus middle class Caucasian families. Thus, the available evidence suggests that SES-related differences in mathematical achievement first emerge by age four and hence prior to school entry.

The second issue concerns the nature and extent of low- and middle-SES children's mathematical abilities prior to entry into kindergarten. Kirk, Hunt, and Volkmar (1975) compared African-American and Caucasian Head Start children from low-SES (impoverished) families with children from higher SES (presumably middle and upper middle class) families. Children were presented with a set of tasks requiring them to construct sets of one to six objects. For example, in one task a set was displayed continuously while the child attempted to construct a second set like the first. In another task, the first set was displayed for a few seconds and then removed. In a third task, a set was displayed and the child was asked how many objects it contained. Performance differences in favor of middle class children were found on each task.

All of the tasks used in this study could have been completed by children if they possessed the ability to count sets of one to six objects without being told directly to do so. By current standards, this was a very limited assessment of early mathematical abilities. For example, there were no tasks in which children were directly told to count, and there were no mathematical reasoning tasks such as Piaget's (1952) conservation or arithmetic tasks.

Ginsburg and Russell (1981) conducted a more extensive study of mathematical abilities in African-American and Caucasian children from lower-SES (impoverished and working class) families and from higher-SES (presumably middle and upper middle class) families. The intent of the study was to determine whether there are differences in young children's mathematical thinking that are associated with social class or ethnicity. Four-year-old preschool children and 5-year-old kindergartners from African-American and Caucasian families were included in the study. Several tasks were presented across two experiments. One task was similar to a task presented by Kirk et al. (1975) in that children were asked how many objects a displayed set contained (the

"Enumeration" task). They were then asked to make a cardinal judgment about the number of objects in the set ("Cardinality" task), and prior to being presented the enumeration task, they were given a rote counting task ("Counting Words" task). Numerical reasoning tasks included a task in which children judged the equivalence of two untransformed sets ("Judgment of Equivalence" task), a task in which children judged the equivalence of two spatially transformed sets ("Conservation of Number" task), addition tasks ("Addition Operations" and "Addition Calculation"), and several other tasks (see Ginsburg & Russell for a complete description of each task). Ginsburg and Russell found significant SES differences in terms of the percent correct or the strategies used by the 4-year-olds on some tasks (Counting Words, Cardinality, Conservation of Number, and Equivalence tasks), but not all (e.g., Enumeration and Addition Operations).

Saxe, Guberman, and Gearhart (1987) also conducted an extensive study of SES differences in early mathematical abilities. Two- and four-year-old Caucasian children from lower SES (working class) and higher SES (presumably middle and upper middle class) families were included. Children were presented with several tasks, some of which were drawn from Ginsburg and Russell's study. Children were tested in both home and school settings. SES differences were evident in 4-year-olds on some but not all tasks. Specifically, differences were found on "Cardinality", "Arithmetic" (addition and subtraction), "Complex Counting", and "Number Reproduction" tasks. No SES differences were found on the remaining tasks (e.g., "Counting Words"). In general, the performance of the middle and working class 2-year-olds did not differ.

Since both the Ginsburg and the Saxe et al. studies included children from working class families in their lower class sample, their data may not reflect the full extent of SES differences in early mathematical development. Consequently, we are currently conducting a study of early numerical abilities in children from impoverished versus middle and upper middle class families. Also, no prior investigation has included an impoverished Hispanic sample in a study of early numerical abilities. We selected a set of tasks to comprehensively assess young children's numerical abilities.

METHOD AND RESULTS: Thirty-six 4-year-old African-American, Caucasian, and Hispanic children from lower SES (impoverished) and higher SES (middle and upper middle class) families were included in the study. Working class families were not included. All low-SES families had qualified for Aid to Families with Dependent Children. Low-SES children were enrolled in a Head Start program or a California State Preschool program. Middle-SES children were enrolled in public or private nonprofit preschools. No program had an organized or regularly utilized mathematics curriculum. Approximately equal numbers of boys and girls, and equal numbers of children from the three ethnic groups were included in the study. There was no prescreening of children for participation in the experiment, apart from the age requirement and receipt of permission for them to participate.

Each child was presented with a set of numerical reasoning and numerical abstraction tasks across three sessions. Each session lasted approximately 20 minutes. Sessions were conducted in the language (English or Spanish) that was spoken in the child's home. The order in which tasks were presented was systematically varied among children. Tasks were selected in order to broadly assess children's abilities in the cognitive domain of number. The following tasks were included in the experiment:

Standard Counting Task: The child counted sets of two, three, four, five, six, and 12 concrete objects. Twelve counting problems were presented in all. Children were scored as correct on a problem if the one-one, stable order, and cardinal counting principles were not violated. On this (and the tasks described below) a score of zero or one was assigned depending on whether a criterion was met.

Error Detection Task: The child observed as a puppet counted sets of three, six, or 12 concrete objects. The puppet either a) counted correctly, b) counted incorrectly, violating the one-to-one or cardinality principles, or c) counted correctly but unconventionally, starting in the middle of a row rather than at one end. Twelve error detection problems were presented in all. Children were scored as correct if they detected a principle-violating error or detected no error when none occurred.

Number Reproduction Task: The child was shown a set of three or nine concrete objects and was instructed to construct a second set that had the same number of objects. Two problems were presented. Children were scored as correct if they constructed a numerically equivalent set.

One-Set Addition and Subtraction Task: The child was shown a set of one to four concrete objects and was told the numerosity of the set (e.g., "Here are two pennies."). In addition problems, a second set of one to two objects was then displayed, its numerosity was stated by the experimenter (E), and the two sets were combined in E's closed hand (i.e., the sum set was screened). In subtraction problems, one object was removed from the minuend set in E's closed hand (i.e., the remainder set was screened). After the addition or subtraction transformation was performed, the child was asked how many objects were in E's closed hand. Six addition and two subtraction problems were presented. Children were scored as correct if they stated the numerical value of the sum or remainder either verbally or by displaying the appropriate number of fingers gesturally.

Two-Set Addition and Subtraction Task: E constructed two sets simultaneously, noting the one-to-one correspondence between objects as they were placed inside opaque containers. After the child judged the initial equality or inequality of the screened sets, one or two objects were added to or subtracted from one of the sets by E (e.g., "Now I'm taking one out of here."). The child then judged relative numerosity of the screened sets. Initial numerosities ranged from five to eight, and final numerosities ranged from four to eight. Some final numerosities were equal, and some were unequal. Seven problems were presented. Children were scored as correct if they correctly judged the relative numerosity of the sets following the addition or subtraction transformation.

Quotite Task: In Phase 1, the Standard Number Conservation Task, the child constructed a set of objects (arranged linearly) to correspond in number to a set displayed by E. A length transformation was then performed on E's set. The child judged the relative numerosity of the sets before and after the transformation, gave justifications, and responded to counter-arguments. In Phase 2, Quotite Task, the child counted his/her set. E then screened E's set and asked the child how many objects were in this set. Two problems were presented, one with five-object sets and one with eight-object sets. Children were scored as correct if they correctly inferred the numerosity of the screened set.

Modified Number Conservation Task: For a full description of this task, see Piaget, 1980. Piaget reported that one-third of 4- and 5-year-olds correctly solved this task.) An essential feature of this problem was that children performed the length transformation by simultaneously placing an object from set a at a predetermined location on board a (in an indentation on a board) and an object from set b at a predetermined location on board b, etc. The transformed sets were unequal in length. Two problems were presented, one with five-object sets and one with eight-object sets.

Numerical Comparison Task: Verbal number names were used in the absence of sets of concrete objects. The child was asked to state whether a (e.g., three) or b (e.g., four) was bigger. Numbers ranged from two to 11, and the magnitude of the difference ranged from 1 (e.g., three vs. two, seven vs. eight) to five (e.g., 10 vs. five, six, vs. 11). Ten problems were presented. Children were scored as correct if they stated which number was larger. Children were scored as correct if they judged the length-transformed sets to be equal in numerosity and then resisted an argument to the contrary.

Enumerative abilities were required for children to correctly solve the problems in the counting, error detection, and number reproduction tasks, and in the portion of the two-set addition and subtraction, quotite, and modified number conservation tasks in which a direct one-to-one correspondence was established between objects in adjacent sets. Numerical reasoning abilities were required for children to correctly solve the problems presented in the one- and two-set addition and subtraction, quotite, and modified number conservation tasks. The numerical comparison task was the only one presented without the use of concrete materials.

We found that on every type of task children from higher SES families were correct significantly more often than children from lower SES families. The proportion of correct solutions for low-SES children ranged from .10 to 58, whereas for middle-SES, the proportions ranged from .50 to 93. The finding of SES differences in young children's mathematical development is consistent with prior findings by Ginsburg and Russell, 1981; Kirk et al., 1975; and Saxe et al., 1987. The finding of SES differences across such a diversity of early mathematical abilities, however, is new. Recall that the Ginsburg and the Saxe et al. studies included children from working class families in their low-SES group. Both groups of investigators found SES differences in favor of middle and upper middle class children on some tasks but found no differences on others. In contrast, we included only children from impoverished families in our low-SES group. This population difference may be the source of the discrepancy between results and those of the above investigators. This suggests that future investigations should treat poor children as a group distinct from working class children.

In general, no ethnic differences were evident in the data, but an unexpected gender difference was obtained in the low-SES African-American group: the girls solved more problems than the boys, a pattern that was most pronounced on the counting tasks and to a lesser degree was evident on some of the numerical reasoning tasks. No other gender differences were found.

In order to understand better the origins of differences across socioeconomic strata in the rate of mathematical development during the preschool years, we will examine research findings on family and school factors in early math achievement. Thus the third issue to be addressed in this paper concerns those attitudes and practices at home and at nursery school that can influence the development of mathematical abilities during early childhood.

Studies of mathematics achievement within the United States attest to the influence of parental attitudes on early mathematical development. In particular, parents' expectations about their children's math performance have been shown to affect the development of children's early mathematical abilities. Entwisle and Alexander (1990), in their large cross-ethnic study of the math competence of children entering first grade, found that the extent of parents' psychological supports (i.e., expectations about math performance and estimates of general academic ability) was the most important factor in predicting young children's math achievement. Similarly, Saxe et al. (1987) demonstrated that parental attitudes and practices influenced early mathematical development. Parents conveyed expectations to their preschool children in the home through daily activities that incorporated mathematical concepts, and the use of these math activities correlated positively with social class.

Cross-national studies comparing the mathematics achievement of American and Asian children document the effects of school as well as family factors on early mathematical development. Stevenson, Lee, and Stigler (1986) found that American children scored lower than Japanese children in math achievement in kindergarten, and that the math achievement of American children continued to decline relative to their Japanese and Taiwanese counterparts through fifth grade. Cultural differences in academic socialization within the family is one factor that has been proposed to account for these differences in the rate of early mathematical development (Mordkowitz & Ginsburg, 1987). In general, the findings indicate that Asian parents (especially mothers) place more emphasis on effort in school achievement, have higher expectations for their children's performance, and are more involved with their children's schoolwork than American parents. For example, Hatano (1982) reports that Japanese parents directly foster the development of early numerical abilities by teaching their kindergarten age children addition and subtraction up to 10. Thus, parental socialization practices in the home play an important role in fostering early (and later) mathematics achievement. But school-related factors also influence early mathematical development. Ginsburg, Choi, Netley, Chao-Yuan, and Lopez (1990) have found that even

prior before entering kindergarten American and Asian preschoolers (4-year-olds) do not perform equally well on tasks requiring early mathematical abilities. Chinese children who received instruction in preschool and Japanese children were more successful on most basic mathematical tasks than American children. Research by Tobin, Wu, and Davidson (1986) can be used to explain the success of the Japanese children. Upon examining Japanese nursery school programs, they found that Yochien programs (which two-thirds or more of Japanese preschoolers attend) include numerical activities such as counting in their curricula. Moreover, Ginsburg et al. (1990) found that Chinese children who received mathematics instruction in their preschools out-performed those who did not. Taken together, the findings of American and cross-national studies of early mathematics achievement indicate that expectations and practices both at home and at school influence the rate of early mathematical development.

Our review of prior research and our own recent research findings lead us to draw several conclusions about early mathematical abilities. First, when the level of SES is equated, there are no differences in early mathematical ability that are attributable to ethnicity. The nature and rate of development of abilities of the three American ethnic groups (African-American, Caucasian, and Hispanic) that have been investigated are not significantly different. Second, we tentatively conclude that SES differences in these abilities emerge between 2 and 4 years of age. Little evidence is available on 2- and 3-year-olds, however, so this conclusion must be tentative. Third, the mathematical abilities of low-SES preschoolers are quantitatively but not qualitatively different than those of middle-SES children. Even though we used research instruments that are state-of-the-art in their sensitivity to fragile early abilities, we found that SES differences in the rate of development of early mathematical abilities are considerable. Fourth, cross-national studies of young children's mathematical abilities indicate that practices at home and at school can significantly influence the development of these abilities.

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Parents' Impact on Children's Early Mathematical Achievement *Linda Musun-Miller, Belinda Blevins-Knabe*

Recently the poor mathematical performance of children in the United States as compared to other industrialized nations has been of great concern. This concern is reflected in the reports of the National Council of Teachers of Mathematics (Bishop, 1990) and the National Research Council (1989), which recommend changes in school environments. Although the instruction provided by schools is likely to be a major influence on children's mathematics achievement (Ginsburg, Choi, Netley, Chao-Yuan, Lopez, Song, Inagaki, & Kondo, 1990), it is not the only one. Differences across cultures in the mathematics achievement of children have been reported as early as kindergarten (Bacon & Ichikawa, 1988). This finding points to the influence of variables outside of and preceding entry into formal schooling. One such variable is the home environment.

What do we actually know about how parents might influence their children's development of number skills? There have been very few studies that have examined the home environment as it relates to the development of number concepts in the preschool years. Still, parents have been found to differ significantly in their teaching strategies and the types of math-related experiences they provide their children (e. g., McGillicuddy-DeLisi, 1982; Saxe, Guberman, & Gearhart, 1987). What might help to explain these differences? Several researchers have recently emphasized the importance of understanding parents' ideas about children in order to understand parents' behavior toward their children (e.g., Goodnow, Knight, & Cashmore, 1986; Sigel, 1986). Just as children can be conceptualized as actively constructing information about the world, so can their parents. Goodnow, Knight, and Cashmore (1986) have suggested that the experience of parenting itself can produce changes in adults' beliefs about children and that these beliefs may influence how parents treat children. The concept of a "working model" from the attachment literature is one we

have found useful in thinking about parents' behavior toward children. We hypothesize that parents develop working models about mathematics and children as a result of a variety of factors, and these models then influence parents' behavior.

What types of evidence indicate that parents' working models have an effect on children's achievement in mathematics? For one thing, parental expectations about how difficult math is for their children are correlated with their children's self perceptions (Parsons, Adler, & Karzala, 1982) and with children's academic performance (Alexander & Entwisle, 1988). Cross-cultural studies provide evidence that the relatively poor performance of U.S. children in math is correlated with differences in their parents' views concerning mathematics and learning. Chinese children outperform U.S. children on measures of mathematical achievement as early as the first grade (Chen & Uttal, 1988; Stevenson, Lee, & Lummis, 1989) and Japanese children outperform U.S. children in kindergarten (Bacon & Ichikawa, 1988). Both Chinese and Japanese parents are more likely than U.S. parents to link performance to effort (Chen & Uttal, 1988; Hess, Chih-Mei, & McDevitt, 1987; Stevenson & Lee, 1990). Japanese mothers are less likely than U.S. mothers to believe that their children were born with their current abilities to read or do math (Stevenson & Lee, 1990). In addition, Chinese parents have higher expectations for and are less satisfied with their children's current performance (Chen & Uttal, 1988; Stevenson, Lee, & Lummis, 1989).

In our research we are trying to identify significant components of parents' working models of how children learn mathematics and of the role parents play in that learning. One important component of any such models must be the values that parents hold. The cross-cultural studies have reported that U.S. parents seem to value education less than parents in Chinese or Japanese cultures do (e. g., Stevenson & Lee, 1990). There is also considerable variability within our society in how important parents feel education is. In our research, we have focused on the relative importance that parents may place on mathematics in children's early education. The importance that parents place on mathematics may influence whether a parent facilitates its learning and what a parent communicates to the child--directly or indirectly--about the necessity of achievement in this area.

Parental values compose only one component of the working model that may guide parental behavior. Another component is parents' beliefs. Beliefs are defined here as ideas about reality. What parental beliefs -- or ideas about reality -- might be of particular importance for the area of mathematics education? Scott Miller, in his review of parents' beliefs about children's cognitive development (1988), includes beliefs about cognitive development in general, about the development of specific cognitive abilities, about children in general, and about one's own child. For example, many parents also have beliefs about math that are tied to gender. Parents of children in elementary through high school believe that math is harder for girls than boys, and that math is more important for boys than girls (Parsons, Adler, & Karzala, 1982). In addition, they believe that the success of girls is due to effort, while that of boys is due to talent (Yee & Eccles, 1988). In our work, we are focusing specifically on when parents think children learn different number skills, what factors parents believe are most important in preschool children's learning specific mathematical skills and concepts, and what role they feel they as parents do or can play in that process.

Finally, we would also argue that the affect parents have about mathematics is an important component of their working model. Of course, the emotional tone of the parent-child relationship will have a profound influence on a wide variety of parent-child interactions (e. g., Dix, in press). What we are concerned about in our work is parents' affect about mathematics itself. The emotional reactions that some people have for math have been described as "math anxiety", which includes feelings of self doubt, tension, and pessimism (Hunsley & Flessati, 1988). No matter what one believes about how children learn mathematics and no matter how important it may be to a given parent, if one has strong negative associations with it, then that parent may not be likely to intervene to help a child and may communicate those negative associations instead.

To summarize, in our work we have been trying to identify what value parents place on mathematical achievement in early education, what beliefs parents may hold about how children learn mathematics, and how parents' affect about mathematics may influence their models of how children learn about numbers and of parents' own role in that process. In our research we have investigated the value U.S. adults place on children learning about mathematical concepts and skills prior to entering first grade. To start, we constructed a 63-item questionnaire that drew items from the Minnesota Prekindergarten Inventory (Ireton & Thwing, 1979) -- specifically the number, reading, expressive language and comprehension scales. Then we gave the list to 225 psychology undergraduates -- 56 parents and 169 non-parents, 66 males and 159 females -- and asked them to rate on a three-point scale how important it was that a preschool child have each skill or concept in order to do well in the first grade. As a partial replication, a shorter version of the questionnaire was administered over the telephone to a second sample of 40 mothers of 4- and 5-year-old children. Both samples rated the general comprehension items as the most important. General comprehension included items such as knowing one's name, address, right versus left, and color names. There were no differences between men and women or between parents and non-parents in the ratings.

We also wondered what relative importance adults would place on academic skills, such as number concepts, compared to social skills. So we revised the first questionnaire by deleting some items and adding others from the socialization subscale of the Vineland Adaptive Behavior Scales. The final 44-item questionnaire cut across the five areas of number concepts, reading and letter recognition, expressive language, general comprehension, and social skills. It was administered to a third sample of 174 university students -- of which 32 were parents. Raters were asked to rate on five-point scale how important it was for a child to master each of these items in order to do well in the first grade. This time social skills, general comprehension, and reading were all rated as more important than number or expressive language skills. The same was true for parents and non-parents.

So what can we say about the value that adults--parents and non-parents alike--place on the learning and understanding of number concepts for young children? Adults consistently feel it is more important for preschool children to acquire general information about the world and the ability to interact well with others than it is for them to acquire more cognitive or academic skills such as mathematics.

A second component of parents' working models is their beliefs about mathematics. In our research we have asked when and how adults think that preschool children learn about numbers. Using the 44-item questionnaire as a base, we constructed a second questionnaire in which we asked raters to rank the relative importance of natural abilities, parents, teachers, and interactions with peers for children's acquisition of each skill. This questionnaire was administered to 166 university students, of which 32 were parents. Across all five domains, parents were seen as having the greatest influence on children's acquisition of skills. Teachers were rated second, followed by natural ability and then by peers. Questions about the relationships between different influence groups and different skill areas revealed that parents were seen as having their greatest effect upon general information, teachers as having their greatest effect upon number concepts and reading, natural abilities as most influential in the area of language skills, and, finally, peers were seen as having their greatest impact upon social skills. No differences were found for gender or parental status of the rater.

To examine further parents' beliefs about when and how children learn specific number skills, we interviewed 27 parents (22 mothers and five fathers) of 4- and 5-year-old children. Parents were shown nine tasks (three concept tasks, three computation tasks, and three counting tasks) that children typically perform for the first time sometime between the ages of four and seven years. These tasks were drawn from the Basic Math Test (Ginsburg et al., 1989). First parents were asked to think of the typical child and to estimate the youngest age at which the child would first be able to perform the task. Then they were asked to rate on a 5-point scale how influential they thought parents, schools, self-discovery, natural talents, peers, and television were on the development of that skill. Then parents were asked the same questions about all nine tasks with regard to their own children.

Parents thought that their own children would learn these skills before the typical child would, and parents of boys felt that their children would learn the skills earlier than did parents of girls. They believed that the counting tasks would be learned first, followed by the concept and computation tasks. They said that adults (parents and teachers equally) are the most influential factors in children's learning of number skills. Next come natural talents, self-discovery and television -- in that order. Peers are seen as having the least effect. Parents also saw themselves as having the most effect on children's learning of counting, and teachers as having the greatest impact on children's number concepts and computations.

So what can we say about what adults believe about when and how children learn about numbers? Adults -- parents and non-parents -- see adults as having the greatest effect upon children's development in all areas. Parents are generally seen as more influential than teachers, who have their greatest impact in the areas of mathematics and reading. The role of parents seems to be to teach basic counting, while schools are supposed to teach about number concepts and computations. Adults believe that their own children are above average and that boys learn math earlier than girls do.

The final component of parents' working models that we have addressed is affect about mathematics. As part of the interview study just described, we asked parents a series of open-ended questions about their own experiences with mathematics and about their expectations for their children's performance. Most of the parents (77%) expressed negative or neutral feelings about their own math experiences. However, 81% expressed an expectation that their children would be above average. Interestingly, even though they rated parents as having a major effect on number skill acquisition, only 33% stated that one reason they thought their child would do well is their efforts to teach about numbers. (Currently another interview study is underway in which we further explore adults' affect and attributions about their own experiences with mathematics.)

What then is the overall description of parents' working models that emerges from our research? Unfortunately, parents do not see math as one of the most important areas for children to work on prior to first grade, and they do not express plans to teach it. Rather than attributing preschool children's mathematical skills to natural ability, parents see themselves and teachers as having a large influence. This last finding is slightly different than that of research with parents of elementary school children. Perhaps as children become older, and as the types of mathematical skills and concepts they study become more complex, parents are more likely to attribute success to natural talent.

Whether parents' working models will lead to parental behavior that facilitates math skills will depend on what that model is like once the effects of values, beliefs, and affect are combined. Once the working model has been identified, one could use it to make predictions about which families might have children at high risk of performing poorly in mathematics. We would hypothesize that parents who place a low value on mathematics, believe that schools have the primary responsibility to teach in this area, and have negative associations and expectations about numbers would not play facilitative roles in their children's learning of number skills. Understanding parents' working models can also be helpful in guiding efforts to design intervention programs that include parents. To facilitate children's learning about numbers, educators may have to design programs to address the fact that some parents' lack of interest in mathematics, are reluctant to step in and get involved in teaching, have negative affect about mathematics, and may lack number skills themselves.

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Discussion *Herbert Ginsburg*

The general question that we are all concerned with is how to improve math education at the preschool level. I want to place some of these presentations in that general context, and to do that, I will start by listing a few general assumptions. One is that poor children do badly in elementary school and high school -- that is widely known. It is also true that middle class children also do not do well in elementary and high school, particularly in mathematics. As a matter of fact, most people do not do well in mathematics in school. We have to keep that in mind. The second assumption is that most elementary and high schools are bad in math education; actually, even universities. Third, parents' beliefs and attitudes and feelings certainly make a difference in how well children do in school. Teachers that do interesting things in schools tell me that parents are a big problem for them. Parents want more traditional math learning. Another assumption I start with is that poor children have intellectual resources that we do not know a great deal about, particularly in the area of what has often been called informal mathematics. Hence while poor youngsters may not do so well in the standard math that is taught in school later, we need to remember that they have many informal skills.

Starting with these assumptions, I find the presentations very interesting, since we really know very little about the development of mathematical thinking in preschool children. We know very little about the attitudes of these children's parents toward math. There has been very little research in this area, as evidenced by the small number of math-related presentations at this conference.

Musun-Miller and Blevins-Knabe both find that adults believe that general cognitive and social development is more important for children at the preschool level than are academic skills. Despite my interest in math, I would tend to agree with that. I think that is a good belief for them to have, and the Japanese would agree. The Japanese, as well as the Koreans, do extremely well in international comparisons. In fact, they do not do very much at all with math education before children get to regular school. The parents believe that general social development is really very crucial, and that they and the teachers are the most important influence on children's work. I believe that neither parents nor teachers are that important, particularly at the preschool level. Parents need to realize that the children are doing a lot of independent learning of which they are not aware, and they really need to understand how important that kind of learning is. So parents really need to be educated.

Another major finding here is that although parents have a negative affect toward math, they think that their children are going to do better. That is really encouraging because while I expected them to have a negative affect toward math, I would not have expected them to believe that their children are going to do well. That is really a sign of progress, and a fascinating finding in your work. It really encourages me.

What are some of the implications of these findings? One is that we should keep an emphasis on general cognitive and social development in our preschool programs. But we might focus a little more on what I call "getting ready for school" -- general

motivational skills that are involved in getting ready for school. In my observation of Japanese and Korean preschools I found that this was really very important. The children were helped to work in groups, to follow directions to a certain extent, to gain self-confidence by doing difficult physical tasks. The things those youngsters do in playgrounds would make a lot of American preschool teachers very frightened of malpractice suits and insurance claims. They do very exciting, difficult things in their schools, and I think that does contribute to their feelings of confidence. We could do more at the preschool level to help children get ready to learn what the social system of schooling is all about. We should not focus on teaching math in a rigid way.

What can parents do to help? They should not see math as most important. And certainly, they should not teach it in the traditional sense. This seems to be the real danger now. We now see these horrid workbooks for parents to use with their children. This is an importation of bad formal schooling into the preschool level. The general idea of these workbooks is that we should introduce math education early, but what they are actually doing is introducing bad math education earlier. It is not good for elementary school children; it is not good for preschool children. If parents are indeed sensitive to the informal abilities of kids, and to the independent ways in which they learn and construct their own mathematics, then there are much more informal things that they can do with their children. Klein and Starkey are working with the Family Math Program in Berkeley. This program stresses informal learning -- everyday activities that parents can do with their children. So parents, rather than teaching in rigid ways, should certainly believe that their children can do well -- better than they themselves have done. They should also press for good schooling, and should not introduce a very rigid type of schooling. In the eyes of some teachers, parents have continued to support bad methods of education. It is very important for us to introduce parent education at the preschool level, and to help parents understand the real strengths of their children and what good math education can be like. I hope we will pay more and more attention over the next several years to educating parents.

The Starkey and Klein paper is one of the few that deals with intellectual mathematical abilities in preschoolers. Starkey described the few studies that have been done on math abilities in preschoolers, but there is very little research. The results reported today are very interesting. One of the main issues concerns research methods: how do you find out what 4-year-olds or 2-year-olds or 3-year-olds know about math? We all agree that it is very important to use sensitive methods to get at these answers.

Let us take these results as accurate: that there are no major qualitative differences in the types of mathematical thinking that young children show, but there are some differences in timing. What does this imply? For one thing, we need, in addition to this type of research, a different approach to research in this area. We need research on learning and teaching rather than on math abilities. I would like to know what will happen with those children who are six months behind or three months behind if they are given very interesting programs in Head Start. Where are they going to be at the end of this? I am assuming that the issue of where they are five years later is basically irrelevant. I assume it is irrelevant because, as I have said, most schools are very bad, and most of these children are going to go into bad schools. The worth of the early programs should not depend on how well or poorly children do later on. We know enough about Head Start now to realize it is not an inoculation. What we do at the 4-year-old level is not going to carry on until the 10-year-old level, no matter how good it is, if the school situation they go into is really bad. I am not interested in predicting school success based on what we learn about preschoolers. I think the issues of prediction are really beside the point. The real issue is what we do with these children at that preschool level. I think that will be interesting research to conduct in the future.

I would like to put these ideas in context. The Asian experience is very interesting to me. We know that Korean children, despite a lack of preschool education, do very well later on. This is true in Japan as well. This shows that preschool training is not necessary for later success in school. Later schooling is a factor, and we should not put all the burden on Head Start and other preschool programs. We should not say that what we do in Head Start is absolutely crucial for everything that happens later on. It just is not. The real challenge is to find out the real capabilities of children at the preschool level, so that we can help them develop at that level, even if later schooling may not be successful. The papers presented today make a good start in that direction. I hope that at the next Head Start Conference we will have many sessions on mathematical development in children.

Symposium 402 EMPIRICALLY-BASED MODELS OF AT-RISK PARENTING

Chair/Discussant: **Richard Abidin**

Antisocial Parents: Implications for Understanding, Treating, and Preventing Childhood Conduct Problems *Paul J. Frick*

Research on the relationship between family functioning and child adjustment has often lacked an "integrated" approach. Specifically, most researchers have failed to integrate parental adjustment into their studies to better understand how dysfunctional elements in the family may be related to the parent's psychological problems. This has slowed the development of causal theories to explain which factors in the family have the most debilitating effects on a child and how these factors impinge on a child's adjustment. Relatedly, such integrated approaches are crucial for guiding early intervention approaches for families, such as those utilized by Head Start, which are tailored to the special areas of competence and deficit in the families served. The importance of taking such an integrated approach to understanding families is illustrated in this presentation by several studies on the families of boys with severe

antisocial and aggressive conduct problems who have been diagnosed with Conduct Disorder (CD) (American Psychiatric Association, 1987). Although this discussion is intended as a guide for the study of the effects of family functioning on many types of child problems, it should be noted that what types of parental adjustment are important and how parental adjustment interacts with familial variables may differ depending on the type of child problem studied.

Reviews of a substantial body of research have uncovered several aspects of parent and family functioning which seem most consistently linked to childhood antisocial behavior (see Loeber & Stouthamer-Loeber, 1986). These are: 1) parental psychological maladjustment (i.e., parental criminality/antisocial behavior); 2) socialization variables (i.e., child abuse, inconsistent discipline, poor supervision, lack of positive parenting); 3) impaired parent/child relationship (i.e., lack of parental involvement with child, harsh or rejecting parental attitudes); and 4) parental marital dysfunction (i.e., marital conflict, divorce, and multiple marriages). The need for integrated approaches to understanding these many types of family dysfunction results from the fact that most, if not all, of these factors are highly interrelated. That is, the presence of one risk factor is likely to be associated with the presence of other risk factors. This is best illustrated by research on the effects of parental antisocial behavior on child adjustment. Children with CD tend to have parents who exhibit a lifelong pattern of antisocial and criminal behavior associated with a diagnosis of Antisocial Personality Disorder (APD) (Biederman, Munir, & Knee, 1987; Lahey et al., 1988). Further, adoption studies suggest that at least part of the relationship between parent and child antisocial behavior may be through a genetic predisposition (Jarey & Stewart, 1985; Mednick, Gabrielli, & Hutchings, 1984). By definition, persons with APD are likely to show several characteristics which lead to severely dysfunctional family environments, such as being aggressive (including a high rates of spouse and child abuse), having difficulty forming emotional attachments, having difficulty maintaining monogamous sexual relationships, and having difficulty functioning as a responsible parent (Milan, 1990; Patterson & Capaldi, 1991).

Therefore, parental APD is usually not isolated from other dysfunctional aspects of the family environment. As a result, several competing explanations, each with different implications for intervention, could account for how parental APD and other aspects of the family environment operate on a child's development. First, it may be that there is a genetic risk passed from parent to child (e.g., temperamental characteristic, deficit in learning, biochemical abnormality), but the family environment also contributes independently to the risk for developing antisocial behavior in the child. Second, it may be that in order for the genetic predisposition to be manifested in antisocial behavior, a dysfunctional family environment is a necessary condition. There are many examples in medicine and neurology in which the behavioral manifestations of a genetic predisposition is determined by environmental influences. Third, some dysfunctional elements in the family may only be spuriously correlated with child antisocial behavior (i.e., have no causal effects) because of the presence of an antisocial parent. That is, the risk for antisocial behavior would be there whether or not the dysfunctional family environment was also present.

Studies are needed that use an integrative approach to looking at families to determine which of these models best explains the development of antisocial behavior for which children. Examples of this approach are a series of studies using clinic-referred boys between the ages of 6 and 13, who were referred to one of three outpatient child mental health clinics in Georgia and Pennsylvania. The first study, using a sample of 66 boys referred to an outpatient clinic in Georgia, found that parents of boys with CD were more likely to be blindly diagnosed with APD than were parents of other clinic-referred boys (Lahey, Hartdagen, Frick, McBurnett, Connor, & Hynd, 1988). Boys with CD were also more likely to have divorced parents; however, when both APD and divorce were studied together, it was found that divorce was only associated with CD because of the high rate of divorce in the parents with APD. In the same sample, an MMPI measure of APD in mothers, a measure of marital satisfaction, and the number of CD symptoms in children were all significantly correlated (Frick, Lahey, Hartdagen, & Hynd, 1989). As was found for divorce, marital satisfaction was no longer correlated with CD when the effects of maternal APD were controlled for statistically.

Using the full sample from all 3 outpatient clinics (n=253), a similar pattern of relations was found for parental APD, teenage motherhood (younger than 20 years of age), and child CD (Christ et al., 1990). That is, although teenage motherhood was correlated with child CD, it was not associated with CD independent of parental APD. Instead, it appeared that parents with APD were more likely to have children at an earlier age and it was primarily for this reason that teenage motherhood was correlated with child CD.

A final study, using a subset of this sample (n=177), employed measures of family functioning that, according to past research, have been most consistently associated with child conduct problems: parental supervision and parental consistency in discipline (Frick et al., in press). As found in past studies, parental supervision and parental discipline were significantly correlated with CD, however, when studied together with parental APD, they were not associated with CD independent of parental APD. Parental APD was significantly associated with CD independent of these measures of parenting behavior.

Taken together, these studies suggest that many types of family functioning may not be associated with CD independent of parental APD. That is, some aspects of family functioning may only be more common in families of children with CD because there also tends to be a parent with APD in the family, which leads to both poor family functioning and child CD. Most previous studies of family functioning have not included measures of parental APD and therefore, could not address this possibility. These studies were not meant to be conclusive and several issues, both theoretical and methodological need to be reconciled before more conclusive statements can be made. Methodologically, these studies were based on clinic-referred boys between the ages of 6 and 13. Therefore, replications using other samples with different characteristics (e.g., community samples, girls, other age ranges) are

essential to determine how robust such results are across samples. Also, the measurement of many of the variables, such as parenting behavior, is very difficult and replication of these findings using alternative measurement strategies is also essential.

Theoretically, it needs to be tested whether these findings are dependent on the type of child adjustment studied. That is, the child outcome investigated in all of these studies was a very severe form of CD which starts before adolescent. It may be that such a severe type of disturbance is more related to parental pathology and may have a stronger biological component that other types of behavior problems. This would be consistent with many studies that have shown that interventions which improve family functioning are effective in reducing less severe types of conduct problems (Kazdin, 1985). Therefore, these children may require more intensive interventions and interventions which do not require intensive parental involvement (e.g., Kazdin, Esveldt-Dawson, French, & Unis, 1987). These speculations only can be further tested and translated into better interventions if future research takes a more integrated approach to studying family functioning.

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The Determinants of "Maladaptive" Parenting: Validation of a Social Cognitive Model *Sandra T. Azar*

Until recently, sophisticated models of the determinants of "competent" parenting have been lacking. New models, while stimulating work in this area, have posited only a loose framework on which to base parenting interventions with at-risk samples (Abidin, 1989; Belsky, 1983). In addition, these models have often focused on macro-level social system based factors as determinants (e.g., economic strain). While major efforts are clearly required to reduce such obstacles to "competent" parenting (e.g., economic supports), much of what occurs in preventive interventions is at the individual level and requires a more refined understanding than these models provide of the determinants of moment by moment transactions that lead to "maladaptive" parenting responses and ultimately poor child outcome.

Recently, a social cognitive model has been offered for the origins of maladaptive parenting (Azar, 1986, 1989a; Azar & Twentyman, 1986). Developed as an explanation for child abuse, it has been extended to maladaptive parenting in general. It is an information processing view of parenting and emphasizes the role of cognitive factors (e.g., parental expectations or "scripts" regarding children and parent-child relationships, moment by moment interpretations of the causes of children's behavior) in producing both adaptive parenting responses (e.g., strategies that foster development) and a social context that facilitates them (e.g., good coping). According to cognitive theories of motivation (Heider, 1958), when an individual encounters an action by another, an interpretation of the meaning of that action must be made in order for the selection of a response to occur. That is, cognitive processes are seen as mediating interpersonal emotional and behavioral responses. The appropriateness of the response made is seen as being dependent upon the accuracy (or at the very least the adaptiveness) of the interpretation made. Over time, we develop cognitive sets or schema regarding the meaning of the responses of individuals we encounter on a regular basis in our lives. These schema or scripts make social interaction more "automatic" and less "effortful." These schema also come to shape our processing of the information that we encounter in interpersonal situations.

Nowhere may such interpretive processes be more important than in the parenting of young children. Young children's motivation is often not clear and must be inferred by parents for them to take action. These interpretations, in turn, serve a

developmental purpose. Parents' selectively marking and responding to children's actions are believed to be crucial in guiding them toward more sophisticated means of responding. Parents must develop a fine tuned ability to identify acts in their offspring as meaningful and worthy of response. Factors that interfere or distort these interpretive processes, therefore, would impact negatively both on parenting and child outcome.

The social cognitive model presented here emphasizes the role that expectations regarding appropriate child behavior play in influencing parental interpretations and responses. Interpretations of children's behavior, unlike those made of adults' actions, must take into consideration the developmental skill level of the child. The standards against which children's behavior are measured must consequently gradually shift with changes in these skills (e.g., expectations regarding the self control of an infant are much lower than those applied to a 10-year-old). These standards aid parents in making decisions regarding the need to intervene in children's behavior and how. In this model, the "optimal" parent would approach the child with a set of standards that are developmentally sensitive. They would be described as operating within the child's "zone of proximal development" (Rogoff & Wertsch, 1984); i.e., just slightly above where the child is, so as to be still within his/her "developmental reach" and behaving so as to "pull" them to the next developmental level. Appropriate expectations also help parents get through aversive childrearing situations. Parents are constantly using the "developmental excuse" to exonerate their children from being responsible for their difficult behavior (e.g., "he's only two, he doesn't know any better"). It also protects them from feeling like a failure when they cannot get their children to perform as they would like.

At-risk parents are viewed in this model as possessing inappropriate (unrealistic) expectations regarding child behavior. When such expectations are inevitably violated by the child, the parent either blames his or her own skill as a parent or is led to attribute negative intent to the child. In either case, a negative affective state results (e.g., low parenting self efficacy). These cognitive factors, unrealistic expectations and negative attributions, coupled with a more restricted repertoire of parenting responses (i.e., poor problem solving) lead to inadequate or inappropriate parenting responses. Over multiple encounters or under environmental stress, in order to protect the self, blame may be entirely shifted to the child and a negative attributional bias would evolve. This bias would increase the risk of extreme forms of maladaptive parenting (abuse).

A series of studies has been undertaken to examine the validity of this view of parenting and will be described below. Three questions served as a framework for these studies: 1) Do mothers who have already exhibited maladaptive parenting show higher levels of these unrealistic expectations regarding children? 2) Do samples at-risk for maladaptive parenting also show higher levels? and 3) Are higher levels of these unrealistic beliefs associated with a greater tendency to attribute negative intent to child behavior and to less adaptive parenting responses?

Early clinical accounts describing abusive parents often noted the presence of faulty parental beliefs regarding children, but initial attempts to document their existence have failed (Plotkin & Twentyman, 1982). These studies, however, assessed knowledge of developmental milestones (e.g., age when children walk), whereas child maltreatment occurs in response to more complex interpersonal events. Using caseworkers' reports of the types of unrealistic expectations observed among their maltreating clients, an instrument was constructed that involves such complex sequences of child behavior (e.g., whether 3-year-olds know when their parents are upset and they should get out of the way at those times).

Two validation studies with maltreating samples have been completed using this measure. If the model holds, then abusive and neglectful parents should show higher levels of these disturbed beliefs. The first study compared the expectations of maltreating mothers (e.g., 10 abusive and 10 neglectful) to 10 non-maltreating ones that were similar on relevant demographic factors (i.e., low in socioeconomic status, less than high school educated, and at least one child in the 3- to 5-year-old range) (Azar, Robinson, Hekiminian, & Twentyman, 1984). Mothers who were evidencing maladaptive parenting showed significantly higher levels of unrealistic beliefs regarding children than did non-maltreating controls, especially in the area of children taking on parental (adult) responsibilities.

While this first study provided some support to the idea that such beliefs may differentiate maltreaters, other non-specific factors might have accounted for the findings (e.g., ones related to identification by a social agency). To provide a more stringent test, a second study was carried out (Azar & Rohrbeck, 1986) where the expectations of abusive mothers of preschoolers (n=16) were compared to those of mothers whose spouse or partner was the perpetrator of abuse (n=14), thus controlling for non-specific factors associated with being identified as a deviant family. Both groups were similar on demographic factors. Again, level of unrealistic expectations significantly differentiated the abusers from the non-abusers. Furthermore, a discriminant function analysis carried out on the responses of the two samples was able to correctly classify 83% of the mothers into abusive versus non-abusive categories. These findings lend further support to the idea that unrealistic expectations distinguish maladaptive parents.

Another series of studies have been undertaken to examine expectations within samples believed to be at risk for maladaptive parenting (Question 2). If expectations are a causal factor in maladaptive parenting, one would expect individuals at risk for such parenting to show heightened levels of such beliefs. To date, two at-risk populations have been examined: adolescents with a history of abuse and cognitively low functioning mothers.

One place where distorted schema are said to develop is in one's family experiences (Kovacs & Beck, 1978). It has, therefore, been posited in the model that disturbed expectations may have their origins in early experiences (i.e., children internalize their parents' distorted views). If this is true, then children exposed to maladaptive parents would be found to have higher levels of

such beliefs. (Indeed, part of the clinical lore in child abuse is that abused children grow up to become abusive parents.) This idea was first examined in a pilot study carried out with eight physically abused adolescents and eight non-abused controls (Azar, 1986). The abused group was recruited from group homes and the controls came from the community, but were similar in demographic characteristics. As expected, the abused teenagers were significantly higher in level of unrealistic expectations [$\bar{x}$=11.38 (SD=2.97)] than controls [$\bar{x}$=6.38 (SD=2.07)] ($p<.002$).

Preliminary findings from a study with a larger sample elaborate on the role that gender of perpetrator may play in the intergenerational transmission of distorted schema (Azar, 1990). In this study, the expectations of adolescents who self-reported physical violence by their caretakers were compared to ones who did not self-report such violence (N=72). Subjects were recruited from an agency dealing with troubled youth (i.e., runaways, truants). When teenagers who self-reported abuse at the hand of a maternal caretaker were compared to those who had not experienced abuse, a trend was found for the former to show higher levels of unrealistic expectations [$\bar{x}$=16.16 (SD=6.79) vs. $\bar{x}$=12.38 (SD=7.97); t=1.84, df=70, p=.07]. This finding reached significance when girls alone were examined, [$\bar{x}$=14.40 (SD=7.15) vs. $\bar{x}$= 9.32 (SD=6.23); t=2.13, df=36, p=.04]. On the other hand, abuse by a male caretaker, appeared to have the opposite effect, the abused teenagers appeared tc have significantly lower levels of unrealistic expectations than those who had not experienced abuse [$\bar{x}$=10.25 (SD=5.67) vs. $\bar{x}$=14.53 (SD=8.23); t=2.16, df=70, $p<.03$]. These findings make sense in light of what we know regarding modeling: the greater time children spend with mothers, the lower the level of unrealistic expectations found, specifically in mothers whose partner was the perpetrator of abuse (i.e., they may counterbalance abusive males' modeling).

Another factor associated with parenting risk has been low cognitive functioning (Schilling, Schinke, Blythe, & Barth, 1982). A second study, therefore, compared 19 intellectually low functioning mothers (borderline or mentally retarded) with 11 mothers who were in the average range. Mothers were all low in SES and had at least one child in the 3- to 5-year-old range. The low functioning mothers were found to be significantly higher in their level of unrealistic expectations than ones average in intellectual functioning [$\bar{x}$=14.OO (SD=7.89) vs. $\bar{x}$=8.55 (SD=5.01); t=2.32, df=28, $p<.05$].

Taken together then, the findings of these five studies suggest that samples who have exhibited maladaptive parenting or who are at risk for such parenting show heightened levels of unrealistic expectations. To further validate the model, links between the level of unrealistic expectations and both negative attributions toward children and parenting risk need to be made. To date, four studies have attempted to do this.

The first study (Azar, 1989b) examined the relationship between at-risk teenage mothers' (N=26) expectations and their level of attributions of negative intent to children. Relationships between these two cognitive factors and use of punishment, self-efficacy, and social workers' ratings of family functioning and child jeopardy were also examined. Mothers' mean age was 19.36 years (SD =1.98) and the age at which they had their first child was 17.57 years (SD= 1.79). They were on AFDC and had on average 9.96 years of education (SD= 1.56). Expectations were assessed using the measure described earlier. Attributions were measured using a series of child vignettes involving aversive child behavior. Mothers imagined that the situations happened to them and made Likert ratings as to: "How much the child did what they did to annoy them?" and then "How strongly they would punish the behavior?" Mothers also completed a parenting self-efficacy instrument and social workers made ratings of family functioning and child jeopardy using scales developed by Ayoub, Jacewitz, Gold, and Milner (1983).

Consistent with the model, higher levels of unrealistic expectations were significantly related to stronger attributions of negative child intent (r=.44, $p<.05$) and stronger assignment of punishment (r=.42, $p<.05$), as well as to higher levels of social worker rated family functioning (r=.58, $p<.01$) and child risk (r=.47, $p<.01$). As predicted, mothers who made stronger negative intent attributions also assigned stronger punishment (r=.78, $p<.001$) and showed a trend toward having lower parental self-efficacy (r=.32, $p<.08$).

In a second examination of this question, the 72 adolescents described earlier also were assessed on their level of empathy and attributions of negative child intent and use of punishment with the instrument described above (Azar, 1990). As predicted by the model, the higher the teenagers' level of unrealistic beliefs about children, the stronger their level of attribution of negative child intent (r=.48, $p<.001$) and punishment (r=.39, $p<.001$) and the lower their general empathy level (r=-.50, $p<.001$).

Based on these first two studies, it appears that unrealistic expectations are associated with a tendency to ascribe negative intent to children and to higher levels of punishment. Inappropriate expectations also appear related to lower empathy and higher level of parenting risk.

Up to this point, the studies described all employed paper and pencil measures and hypothetical childrearing situations. The last two to be reviewed were efforts to examine the model in actual childrearing situations. The first was a laboratory study that manipulated level of childrearing stress on mothers who were high and low in unrealistic expectations, as well as high and low in overall life stress. This study was an attempt to examine the relationship between such beliefs and parents' interpretations of child behavior in an actual frustrating childrearing situation and under differing levels of contextual stress (Azar, 1988). This was the first effort to extend the model to a "normal" sample (i.e., a range of SES backgrounds and not identified as at risk) and evaluate it under experimental conditions.

Briefly, the four study groups were exposed to a laboratory situation that involved them "succeeding" and "failing" to teach their 3- to 5-year-old children puzzles. The puzzles were selected to be within and above their children's capabilities and to

manipulate mothers' level of frustration. Once exposed to this childrearing stress manipulation, the mothers were asked to provide attributions for their success and failure at the tasks, as well as rate their own and their children's performance. They provided their attributions using Likert ratings of the most common attributions for success and failure typically cited in the literature (e.g., maternal/child effort/ability, task difficulty, luck) and then were asked to rank "the most important" reasons for their success and failure. The findings indicated that mothers who were high in unrealistic expectations blamed themselves more for failure and gave themselves less credit for their success with their children than did mothers with low levels of unrealistic expectations (based on Likert ratings). When rankings were examined, mothers who were high in both unrealistic expectations and life stress were found to be more likely than the other three groups to rank something about themselves or their children as the most important reason for their "failure" on the teaching task. It appears that when mothers who hold these disturbed parenting "scripts" experience childrearing stress, they are more likely to attribute blame to themselves and when they are doing well, are less likely to give themselves credit for success. This state of affairs is more likely to occur when they are also encountering contextual life stress. When mothers' ratings of their own and their children's performance were examined after the stressful situation, the mothers high in unrealistic expectations rated themselves and their children as significantly less competent than mothers low in such beliefs. Overall, the findings appear supportive of a number of components of the model.

A final study was conducted with 29 low socio-economic mothers, many of whom were Head Start parents (Barnes & Azar, 1990). They were asked to keep structured diaries of their cognitive and behavioral responses in discipline situations with their preschool children over a five-day period. Mothers were broken into groups high (n=15) and low (n=14) in unrealistic expectations and their responses were compared. While the number and types of incidents the two groups reported were not found to be significantly different, their cognitive (e.g., attributions, reasons for engaging in discipline) and behavioral responses were. When asked why they thought their child had engaged in the behavior requiring a disciplinary response, mothers with high levels of unrealistic expectations showed a higher proportion of incidents where they gave negative attributions and a significantly lower proportion of incidents where they gave positive ones (e.g., "she was trying to help"). In particular, they made a significantly greater proportion of dispositional attributions (e.g., citing a negative child personality trait). Groups also differed in their behavioral responses. Mothers who were higher in levels of unrealistic expectations showed a significantly lower use of explanation as part of their discipline and showed a trend toward a higher proportion of incidents where they used power assertive strategies (e.g., yelling, hitting). Mothers who hold such beliefs appear to engage less in responses that facilitate children's moral and social development. Finally, for each incident, mothers were also asked to give the reason why they had felt they needed to do something about their children's behavior. Since it is posited in the model that mothers who possess these unrealistic scripts regarding children see them as having adult capabilities, it was predicted that these mothers would verbalize less often their role as teacher in their responses to this question. This hypothesis was supported, but only with mothers who had female children.

In summary, the findings of the studies reviewed provide some support for the validity of this social cognitive model of parenting, at least with mothers. Unrealistic expectations regarding appropriate child behavior were shown to be associated with risk status, negative attributions toward children, and greater use of maladaptive parenting responses and lower use of more adaptive strategies. In addition, level of negative intent attributions was associated with greater assignment of punishment in the correlational studies. This preliminary statement of the model may provide a more fine-tuned view of the determinants of moment by moment parental responses than previous global models and thus, may have greater utility. Studies are underway to examine the model's validity further (e.g., larger samples, other risk groups, extension to fathers).

This model has implications for parenting interventions. Typically, parent training focuses on behavioral skills. These findings suggest an emphasis on cognitive factors is also needed, specifically expectations and attributions (Azar, 1989a). Cognitive behavioral strategies for "restructuring" individual's beliefs have been explored within other disorders marked by cognitive disturbances (e.g., depression). Azar (1989a) describes a potential cognitive behavioral parent training package that provides child management training, but also challenges parental scripts. A small scale comparative treatment outcome study employing this package indicated some success with maltreating parents (e.g., no recidivism at one year follow-up; Azar & Twentyman, 1984) and bears further exploration.

A final note must be made regarding the relevance of this cognitive model for different cultural groups. Expectations regarding appropriate child behavior varies with culture and even within subcultural groups within our society. Care must be taken in future studies to examine this model with different subcultures before it can be generalized to other groups.

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AUDIENCE DISCUSSION

The issue of social desirability was raised as a potential alternative explanation for some of the reported findings. While panelists felt that families were honest in their responses, future studies might attempt to control for a social desirability factor more directly. Abidin commented that there was tension between genetic/temperamental and social-cognitive causal theories which can be resolved by recognizing that many of the people who fall into the "psychopathic deviant group" are noted for having unrealistic attitudes. It was proposed that in such cases parents should be assessed in order to dctermine whether alternate role models are necessary for the child.

Symposium 403 HEAD START RESEARCH COOPERATIVE PANEL: AN EXPERIMENT IN RELEVANCE

Chair: **David Weikart**; *Presenters:* **Jerry Scott, Sherry Odin**

DAVID WEIKART: One of the main purposes of the development of the Head Start Research Cooperative Panel was to try to begin an integration of Head Start and good quality research. Second was to determine if the half a billion dollars spent on research in Head Start has had results -- if it has had any impact on Head Start practitioners and programs. The answer to that unfortunately is vague and difficult to pinpoint. The most important research that has occurred in Head Start has been outside of Head Start, about Head Start, such as the Perry Preschool study. If you were to query most people, they would not realize that Head Start was not the subject of the Perry research. The other question is, where are all the staff who were trained by that half billion dollars? Are they on your payroll? Are they available to you? What type of impact has that half billion had in terms of staff, development for you as staff in Head Start? The Cooperative Research Panel was developed to address this question. Was there some way of capturing these dollars that were being spent on research, to assist Head Start directly?

We would like to present a method which was developed to do this. One of the most interesting aspects was that it was not developed from a carefully planned strategy developed by advisory committees. It was Clennie Murphy and me sitting down over breakfast in Seattle at a conference many years ago and saying, "Isn't it a shame research doesn't seem to help Head Start much." "Well," said Clennie, "Dave, why don't you do something about that? Why don't you set up some kind of research that would include Head Start in some way and then let us talk about it." Out of that came the idea for a panel which was to develop a better relationship between research and Head Start. It was developed in a way that would get Head Start involved in research. It was developed in a way that would permit the projects working in Head Start to actually use the research in some way. To do that we decided that we needed 10 to 12 sites across the country so that when we finished the research and pooled the data, we could say the research was national in nature. It was not just some local project somewhere. Twelve sites were selected nationally, representing the range of populations, types of children, types of Head Starts that would be effective in representing national Head Starts. We also worked for a broad geographic distribution so that the sites were not all east coast or west coast. We also contacted those directors -- and this is one bias in the sample -- that we knew or were recommended to us as having high energy, good organizational skills, and quality staff. We did not choose agencies where there were problems that had surfaced, such as change of administration. We chose agencies that were stable. Participation was on a voluntary basis. We telephoned the sites and asked if they would be involved. No site that we had selected refused to participate. They knew when we called that we had about $15,000 dollars per site to work with and that they would be responsible for that amount. Of that $15,000., $5,000 was for a subcontract to High/Scope which left only $10,000. High/Scope worked as a technical consultant to the group. We knew that the programs we were working with were

interested in research. They had staff who were interested in staff training, they were interested in program improvement and they were involved in thinking through the issues that were related to Head Start.

Next, we were very interested in the fact that this panel was going to be doing different types of research than has been traditionally done in Head Start. For example, we were reversing the typical Washington, D.C. -- Head Start relationship, where Washington issues an RFP or describes an idea of what they wanted done and then a university or contract house takes the resources and puts them to answering that specific task. In this case, the executive director of each Head Start formed an executive panel that would operate the project. It was set up that the panel directors made the decision about what research to do and how to operate the project. The topics were to be generated by the panel, not by the contractor, in this case Washington, or national headquarters. We wanted to do studies that would relate to the interest of the local Head Starts. The data was going to come from the local Head Starts and then be pooled, but they were to be of interest to all Head Starts. We also felt that we should use a four-year cycle in the project and that we would work on a four-year basis. In any four years, we would do four things. First, we would plan the next research project that would be done. Second, we would collect research data that year for the research that had been planned previously. Third, we would analyze the data collected the prior year and involve the community in its analysis and understanding. Fourth, we would be active in disseminating information from the projects we had completed in any given year. You can see that those were also four-year steps in a project. Year one, plan a project; year two, get trained and collect the data as planned; year three, analyze data collected in the prior year and do the analysis in the community; and year four, disseminate the information to national and regional Head Starts.

The type of work we did, what it meant to a site, and how we felt it could change a site is a topic that is probably of primary importance to the study. The purpose, while it was on the research, was that we wanted the data and the panel wanted the data, but the main objective was to determine whether this research strategy was useful to the Head Start programs.

Jerry Scott, Vice-President of Administration at the Miami Valley Head Start Center, and a member of the panel, and Marilyn Thomas, Executive Director, will talk about some of these issues.

JERRY SCOTT: When we all got to Ypsilanti in November 1987, we had only a small notion of what this was all about. We were going to do some research. That was the extent of our knowledge. We were all Head Start people, and we knew what we wanted in Head Start; however, we did not have the foggiest notion what we were doing. Dave called and asked if we would participate, and we agreed. Our next question was, "What exactly are we going to do, Dave?" I think his answer was, "Come up to Ypsilanti and we'll tell you. Dave had an idea of what we wanted to do but I'm not sure that that was in consonance with the Federal people who were there. I think that they still had the idea that they might tell us which research to do and how. When you are dealing with 12 strong-willed executive directors and a strong-willed staff that they had brought with them, it soon became clear that that was not going to be the case. At one point, after about a day-and-a-half of trying to decide how we were going to go about this, we asked Dave and the Federal people to leave the room and let us decide what kind of research we were going to do and what issues we were going to discuss. Once we got rid of them, I say that kiddingly, it boiled down to us trying to decide among ourselves. We had to forget all about our own personal and program biases and try to hone in on the issue at hand -- to conduct some research, or to design research that would be beneficial to us locally and add to the body of knowledge about Head Start and preschool programming. This was not an easy task. We had to go through many possibilities, deciding whether we were going to do a qualitative study, a quantitative study, or what we were going to be all about. We finally came together and it was as if a bolt of lightning hit us. We finally decided this is what we wanted to do. We looked at the Perry Preschool Project and the executive summary that had come out on the Head Start Synthesis Report, the meta analysis study. We decided that we would like to take a snapshot of Head Start families today -- former Head Start students and their families who had been in the program. Next, we decided that we might want to look at students at three different levels: former Head Start students who were at that time in the first grade; those in the fourth grade; and those who were in the 10th grade. Deciding that and trying to follow through on it was quite a process. Trying to determine who those children were -- I don't know about your records keeping and your programs, but we thought ours was pretty good. We found out it was the pits. We had to identify those families, try to get their permission to participate and try to get the interview instruments designed. It was not an easy process at all, but it was one that was very worthwhile. It was one that added to our own expertise in our programs. It really made us do a lot of in-depth thinking about what we are, what we were and how we were going to improve our own capabilities in the area of caring for children, and record keeping -- because record keeping is a large portion of running any program. It made us realize that we did not have all the contacts we thought we had out in the community, we thought that we had a good relationship with our public schools -- not so. They did not even know we were around. We decided that there were several things that needed to happen, aside from the research aspect. We needed to do some things in-house to make the research even better. After several days of meeting and talking and deciding where we wanted to go, we went back home and then the work really started. There were many phone calls and many letters between High/Scope and the eleven agencies (one had to drop out for programmatic reasons). We finally were able to come up with some research instruments that we could use; we decided on the number of students we would collect data on at each location and at each grade level. After all this work we thought, "We've got it made." Well, we didn't have it made. That was just the beginning of all the problems that we were going to face.

We have been doing this for about four years and you just can not imagine how it makes you feel to know that you are doing something for Head Start, and you are asking questions of those that Head Start impacts the most -- the families and the staff. That is the most important thing. The type of research that we are involved in is not as complicated or as sophisticated as what might be called pure research. This is something that we hope is very practical -- something that we can use -- something that other people can read and know exactly what we did and how we did it and what the results are.

The organizations evolved and each agency went through the questioning: Can we do it? Is it worth it? What is the impact on our agency? The agencies were willing to go forward, but they questioned whether it was really research. I told them it wasn't any less scientific than what we see. It was related to what the interests were. I question why some Head Start directors give permission to do some of the studies that they agree to -- the research that is done for a dissertation, the research that you as a director do not need, or research that you do not need as a Head Start. That is not to say we should not give permission for outside groups to study our children. We should do that, but we also have to have our part in what is going on and I think that is why I was very impressed with these directors -- they bit into this and found out how difficult it was and instead of saying, "Well, that's too tough," they said, "Well, that is what we need," and they moved.

While they were doing the longitudinal study, High/Scope was floundering with the IEA Pre-Primary Child Care Study. Some of you may be familiar with that. That is the study which is looking at the status of child care in the United States and in twelve countries internationally. We had already completed the first part of it, which was to look at the governmental policies in each of these countries, with the findings published in the book How Nations Serve Young Children. The second step of that study was to look at the issue of who families actually use for care. They say they do this, but what do they actually use. We have national statistics, but they come from telephone survey or church survey. We do not know it precisely. High/Scope approached the directors and asked them if they would like to know, in the region they serve, on a random sample basis, exactly how children are served, because that is information that Head Start should have to determine the need for expansion. Their response was that they would accept this as a second study while working on planning the third, which was to be an experimental study of some Head Start issues. This study was done in eleven of the twelve sites. The data are now in the process of analysis. They developed an actual set of data for the United States based on Head Start. This is the first study done by Head Start where Head Start agencies took the initiative to collect random data on their entire communities. When this is finally released -- community by community -- each of these Head Starts is going to be in a position to talk to their community about child care and child care issues, because they have this kind of data from their community. One of the other initiatives that we were thinking about is that if this could really work, the local leadership in early child care could fall naturally to Head Start because of their drive in putting information about child care and child care issues on the agenda, on a research basis in the community.

Sherry Odin, a senior research associate at High/Scope, will talk briefly about the process of these studies, some of the issues involved, and how they might relate to your concerns and issues in Head Start research.

SHERRY ODIN: I noticed that in the recent Federal Register, partnerships between university researchers and Head Start agencies were called for. What I want to do is distinguish that -- which, I think, is a very excellent direction in itself -- from what we did. I see ours as much more collaborative than a university researcher coming in from a theory-driven approach or with a particular empirical experimental problem and wanting to use Head Start facilities and children, and being cooperative with the Head Start people. I assume that some relationships will not go like that -- they will be more collaborative, but that is the dominant model of the researcher trained in the university. That framework was in my mind when I met with Dave and he briefed me on the project, and what we would be doing. There would be an Executive Committee, and we would work with these Head Start agency directors, and train them in research and they would decide on what we would study and how we would study it. I said, "Wait a minute, wait a minute. These are people who have never done research?" He said, "Yes, yes." I said, "And they're going to decide on what we're going to do and they're going to do the research?" He said, "Yes, that's the whole idea" It was quite a shock and I was taken aback and thought, "Boy, I'm in for some real work." I have been a professor for ten years, working with teachers and doctoral students, and I knew I was in for a challenge, but I did not realize how much growth I was in for. I want to run through the basic activities that we undertook, five major meetings that took place, and all our communications via telephone and mail, over about a two and a half year period. There were two projects. We informally refer to one as the case study project, but it is a qualitative study of children who were in Head Start and their families one year later (1st grade), four years later (fourth grade) and ten years later (tenth grade). The panel wanted to conduct in-depth interviews, which would include a variety of questions; open-ended as well as closed-ended. One thing that was remarkable to me as a researcher was that through our discussions, which ended up being debates in many cases -- we had to forge through the alternatives, and what would be gained from doing a design where we looked at these different levels or whether we looked at something like children grown up today. That was something we were pushing for. We thought, "Oh, that would be interesting to look at how children are doing now that they are nineteen." -- similar to the Perry study. We researchers were in our own framework. They pointed out that there are studies about children in kindergarten and about children who are nineteen. What about the process in-between? After much debate, we stepped back and the panel decided. They actually voted and had heated discussions among themselves and through this kind of interactive process, they learned about how to forge a research question; how to develop a design that relates to the research question. We were part of that process. Often directing it, but often stepping back and

watching them direct it. It is that kind of dialogue that is very unusual between practitioners and researchers. It is that very kind of dialogue that is so often missing. There needs to be more research on the link between theory-driven research and the applied kinds of issues. It is very difficult to do this work, but it is essentially what we need more of. We focused on the main questions and these then became the basis for interview items. Through small meetings, we were told the kinds of things that we ought to be looking at. Continuing that dialogue ended up in some instruments. We developed the instrument items and they were then critiqued by the panel and their staff. We revised them and came back to the panel, and after some more revisions, they were approved. We had our questions, our method, our design and our instruments. What about the actual data collection?

By this time, we had learned to communicate more easily with each other. It was a good thing because now we were out in the field. Trying to supervise this study where you have hired people at different sites away from where you are, is something that is not often done by researchers. This had another level in it. We trained the panel and their staff in interviewing techniques. Then they hired independent interviewers who did not have an investment in Head Start to do the interviewing. They hired the interviewers and trained them. They tape recorded pilot interviews -- sent them to us -- we gave feedback. That process went on, continuing the dialogue over distance.

How were the subjects selected? They were not selected by the Head Start sites. They were selected by schoolteachers or by the Head Start staff asking the teachers to request students to volunteer. If the teachers knew the child had been in Head Start, letters were sent home. Therefore, there were several different ways of doing it. The names were gathered by the teachers, and they gave us children from a range -- those doing well in school currently -- those having difficulty, so that we would have a range of children to look at. These names were then sent to High/Scope and we did a random selection. The interviewers pursued the people to participate in the study. For the training we used videotaping of interviews and we also did a lot of practice. It was a very active kind of training. The data was collected over approximately a year and a half -- it took that long to do this kind of research with the parent, the current school teacher, and the child or youth, in the case of the tenth grade student. In addition, Head Start staff did some open-ended interviews with the Executive Director of various community agencies: the Health Department, the Social Service Department, to get their perspective on Head Start's impact on the community. We had tape recordings of those as well. We collected extensive data, most of it qualitative, but throughout these interviews we had scales and we have treated the scale data as a test on the validity of our qualitative conclusions.

This might be a time when you would back away from a study as a more applied person and say, "Okay, let those guys go ahead and analyze the data." But not so. Instead, we continued the dialogue and we developed a way of compiling the data, based on the major questions that had been articulated by the panel. We proposed some narrative formats for these case studies (that would give a whole picture of life today) of these former Head Start graduates and their families. The panel approved the narrative format that was used. We have 132 narratives written up in a consistent, systematic fashion according to the advisement of the panel and consistent with current qualitative techniques in educational research.

The panel took random case study narratives and had meetings with parents, staff and educators in their community, and asked them to interpret what they thought they meant, what the implications were locally and nationally. Again, those findings were given back to us to help in our interpretation, to check on the validity of interpretations we might make as we looked at the whole set. Currently, we are in a process of finalizing this study and are awaiting further funding to help us do that step. We do have the data and we are continuing to work on it. The panel has made a number of presentations on the preliminary findings. It has been used in testimony at state and national levels, and nearly every panel member has made a presentation of the preliminary findings.

The other project that Dave spoke about, is the U.S. Child Care Study. The methods for that project were set by the international committee, and High/Scope is the coordinating center. There are questions developed about Head Start, and how Head Start is perceived in communities, and what its impact is. That data will be available as well.

One of the things that so many members of the panel said that they really felt directly translated into from this study, into skills, was the household listing and screening that they had to do. They had to look for 3 1/2- to 4 1/2-year-old children and then on a random basis, do interviews with the family about what the child was doing, what kind of child care they were using and what they would need. First came the household listing, then the household screening and then the actual interviewing. Very sophisticated research techniques that are typically used by major national survey and international survey research organizations were effectively employed by these Head Start directors. The referee and the international center has said that the data are very good and meet all the standards.

This work translated into help with recruitment, expansion and so forth in very direct ways. The data are being analyzed now, and will be available in the coming year. The panel will be involved in the dissemination as well. It was an opportunity for the panel to be part of the broader early childhood education community, and it will continue to have that kind of opportunity.

In conclusion, I would like to mention what I see as the major contributions that the panel made. One, they demonstrated that Head Start staff at local levels do have the interest and talent to do research. Secondly, the Head Start staff have the grass roots experience to focus on research methods and questions, and take that focus and turn it into key issues for parents of children in the community. They can get at the less obvious issues and help frame them for researchers, and help researchers interpret data in ways that are essentially relevant to their work. Third, the panel showed that Head Start directors and their staff can disseminate findings locally and nationally at conferences and also within the broader early childhood education community. Finally, the panel showed that

Head Start directors can sensitize researchers to the key issues of families and children living in poverty, their struggles and their victories. They can get us to develop studies that do not fold neatly out of childhood development theory and they can get us to interpret data with an expanded kind of understanding and knowledge. The different types of partnerships that we have been talking about here are partnerships in which each partner has an expanded capability in a research context that will end up better serving children and families and expanding the knowledge base at the same time.

JERRY SCOTT: The Partnership that we formed was a very rewarding experience for all of us who were involved as panel members and Head Start representatives. The partnerships between research and Head Start, between High/Scope and the panel, and another set of partnerships that are being developed between the Head Start agencies and the local communities and those other service organizations and institutions that are out there that we depend on so heavily, but have not really made the inroads that we needed to make.

One thing that came out of the panel are the preliminary results that High/Scope developed for each agency -- sample narratives on the findings. We could not identify the specific children as being from our own programs, but High/Scope did provide us with about six or seven case study samples of the preliminary results. We contacted various agencies and individuals within our communities (parents, staff, executive directors of social services institutions, superintendents) and had them come in and look at the case studies, discuss them, and try and get a reaction on how they felt about the research to date. This was one of the most beneficial things, from a local perspective, that came out of this entire research effort. The panel can take credit for suggesting that we do this, but it really came out of the research end of the house. They thought it would be something that would lend validity to the whole process. We discussed various issues related to the case studies with them. One of the things that we thought would be difficult was getting these people to come together, sit down and read something and then talk to us about it. As it turned out, they were quite willing to come in. They had heard about the research through newspaper and media releases that we had done and they were very anxious to see some results, even if they were preliminary. They came together. They discussed it. They looked at the research. They talked about it in very, very great detail. Then they made several recommendations to us as to other areas of research that might come out of these findings. More importantly, we now have an avenue that is opened to us. We can pick up the phone and call the superintendents; they know who we are now. We now have an ongoing relationship with these other agencies that, in the past, we had not fostered.

Dave started out by saying that one of the things that we hoped would come out of this was that Head Start agencies would establish themselves in a leadership role in the community. In our case, and in the case of most of the panel members, this has happened. We are looked upon as "the experts" in the area. We used to be the last ones called and now we are first, and that has been very positive for Head Start.

DAVID WEIKART: I want to make a couple of comments about the problems and issues in running a program like this. I will be honest. There were problems in doing this. They were not problems with the agencies, though -- which is interesting. There was a good deal of miscommunication between the project, in general, and ACYF. Sometimes ACYF staff who should have been at our meetings could not get travel funds. We had to depend on the phone. The other alternative was to go to Washington and have the meeting there, which did not always work because of the other demands of the project officer. That has been a problem. There is miscommunication and that has to be resolved in any project. The real issue, of course, was over the independence of the directors as an Executive Committee. It was very difficult for ACYF as an agency to accept that -- and yet, that was key to not only the ACYF relationship but ultimately, over time, to the relationship with High/Scope. While we set the group up, they became increasingly independent, as they should. These were not things that ACYF or I would have thought about. There were problems and issues that people faced on a regular basis. They were not in any RFP. There were concerns at Head Start. Also, there was a disaster. We raised $50,000 from the Department of Education to allow the agencies to look at public school Head Starts in their area. The money got lost in transit. We raised the money, and it never got to us. Finally, the last blow to the project, and we still have not solved the problem, is that two summers ago the grants were being made at $20,000 per agency, but suddenly they were withdrawn. Several agencies had gotten the money and the money was taken back, even though the grant had been made. We were suddenly -- all the sites and High/Scope -- left without the resources to even complete what we have talked about. Part of our struggle since then has been to try to raise the funds necessary to assist High/Scope in finishing these projects. We have to resolve that problem because the data are here and analyses are going forward slowly, but with great difficulty.

There were some problems with the people that we had. One group, for example, dropped from the study because of a change in Head Start. The agency that had Head Start was thrown out and another agency took over. Then there was an illness of one of the directors, which caused a problem at that site, though they did marvellously well in maintaining the quality of the research and indeed, we were satisfied with it. There were things like that that interfered, from the agency side. Perhaps the last point I would make is that the program needed more sites. Twelve, we thought, would be sufficient. Actually, it was not enough, and we now recommend fifteen. We did not have California. We did not have the mid-States. We needed a Colorado or a Utah or somewhere in through there. We needed another mid-South site. There were sections of the country that were not represented.

In general, the idea of a Head Start Research Cooperative Panel is not only sound but an extraordinarily effective device to integrate research into Head Start. The Head Start directors need to be at the center of research. They can deal with program operational issues that are involved in research. It helps them bring those to the fore to be studied. It generates new ideas, new approaches and new opportunities for staff. It re-positions the agency in the community. It allows the transfer of research to program, at least we think it will, through these discussions that we have had. It allows Head Start directors and staff to become spokespersons for research in the Head Start community. It encourages staff, the Board of the agency, and the community to get involved in research. It produces a broadened, professional perspective for the agency. It develops leadership in the agency and it trains the community in leadership. The Head Start research cooperative is a type of project that ought to, in fact, be forwarded. We were able to sell it enough to get it in the current authorization for Head Start. There was no appropriation for it, but it was in the current authorization. It says, "The Secretary is encouraged to provide funds for community-based cooperative research efforts to enable Head Start directors to conduct evaluation of the programs with the assistance of qualified researchers not directly involved in the administration of program or project operation."

High/Scope proposed that a series of six panels be established with fifteen members each. We proposed that these panel members receive $20,000 each, and that the support agency, like High/Scope or somebody else for the other panels, would be funded at about $200,000 a year, which was the actual cost of operation. This $3 million dollar set aside would provide for 90 Head Starts a year to be involved in these kinds of projects.

AUDIENCE DISCUSSION

Discussion centered around testimonials from audience members who had been part of the project. One member noted the tremendous opportunity afforded their agency by participating in the project. The agency was able to influence their State Department of Education by sharing results from the project, specifically in the areas of comprehensiveness of services and parent involvement. Since that time, Head Start has had a key leadership role in that state, as well as in the business community. Another audience member commented that the visibility ultimately benefits the families they serve. Writing and presenting proposals to their Board of Directors and explaining the importance of research was mentioned by a third member of the audience as a benefit of being part of the project. The experience gave them and the Board broader skills and interests that they were able to use in other ways, such as fund raising. Parents on the Board and the Policy Council were instrumental in shaping the research by asking in-depth, thoughtful questions and continually focusing the group on relevance and utility.

Symposium 404 ENHANCING THE OUTCOMES OF LOW-BIRTH WEIGHT INFANTS

Chair/Discussant: **Julius Richmond**

Enhancing the Outcomes of Low-Birth Weight Infants in the Infant Health and Development Program: Implications for Early Intervention Programs *Jeanne Brooks-Gunn, Cecelia McCarton, April A. Benasich, Ruth T. Gross, Donna Spiker*

This program was an attempt to alter the developmental trajectories of low-birth weight babies. The developmental delays show low-birth weight babies tend to persist through school age. Most interventions for LBW babies take place during the first year of life. These programs, in general, are very effective. However, there have been very few studies of LBW babies that specifically look at outcomes past the first year of life. We know that these children have developmental delays. We know that nursery-based interventions work. We also know from the literature that programs for disadvantaged children, as pioneered by Julius Richmond and Bettye Caldwell, have the potential for altering disadvantaged childrens' developmental trajectories. However, those programs, in general, have not been specifically applied to LBW children, even though many of the programs that have been in existence in the early childhood field probably included LBW children. People did not think about LBW children as a special group, nor were they analyzed separately. With a study of 40 students, how are you going to take out your three LBW children and look at them separately? We wondered whether interventions that have proven effective for environmentally vulnerable children, with modification, would be appropriate for this other vulnerable subgroup of the population.

When we were developing the study, we struggled with what kind of curriculum we should use. Should we develop something totally new or should we go to the field and try to modify for LBW children? We took the latter course, and used a series of interventions developed at North Carolina by Joe Sparling, Craig Ramey, Donna Bryant, and their group. We used two types of intervention. One involved home visits. We went into the homes of our treatment children every week for the first year of life, and we provided them with a curriculum, Partners for Learning, and learning games. We taught the mothers how to interact around a series of tasks with their babies. We also provided the family with some of the J & J toys. This is fairly traditional home visiting. The difference is that this curriculum is very structured. Most home visiting programs are much less structured, making it difficult to know what the families are getting. In this study we know what children were doing on each visit during the first year of life. We continued home visiting for the second and third years of life, but only every other week. We included the center-based component at that time. We

used the same type of curriculum in the center-based program that we had used with the parents. These are curriculum items that have emotional, social, fine motor, gross motor language, and cognitive components.

A structured intervention was important because the study was done at eight sites across the country. We wanted the curriculum implemented as similarly as possible across sites so that we could look at effects across sites. That has not been done in the past. It is very difficult to do, especially because curriculum are linked to the individual child. In order to insure that the intervention was the same at all sites, people from the North Carolina group that developed the curriculum monitored compliance. They had teams visiting and working with sites. Given that we were not monitoring there every day, it really did have incredible comparability across the eight sites. The other good news is that it is very clear that if we ever wanted to help community centers use this curriculum, we now have so much information it would be pretty easy to do it. I think that is important since this was a demonstration program.

One decision was whether to include environmentally vulnerable LBW children. Should we use the whole social class range? We decided that we were going to use the entire range, so that we could look at differential effectiveness in different subgroups of children. Another decision was whether to focus on the lowest of the low-birth weight or the entire range of low-birth weight. The final decision was to include the whole spectrum of LBW, with oversampling of the smaller babies. We have more babies under 2,000 grams than we have from 2,000 to 2,500 grams. We have enough children from 2,000 to 2,500 that we can look at the efficacy in that particular group. That was a very important decision, given what our findings look like. In retrospect, it would have been a big mistake to look at only the smaller babies. For example, we did not include a 2,500-plus group, so some argue that we cannot compare these effects to the literature on full birth weight babies. We counter by saying that the effect sizes look pretty similar.

Fifty-two centers applied for this demonstration, from which we selected eight. We asked one center to enroll about 135 children over a six- to nine-month period. We had two-thirds of our sample under 2,000 grams; one-third were 2,000 to 2,500 grams. We gave our intervention services to one-third of the children and the follow-up comprised two-thirds. That was purely for monetary reasons. The intervention was expensive to mount, going from birth to age 3, with home visiting in the first year and center-based programming being added at 12 months of age, going through 36 months of age. The babies are now age 6 1/2. We are following them in school. We have funding from the government to see them at age 6 1/2 and at age 8, so that we can get a measure of school functioning.

The intervention ended at age three. After that we have a natural history experiment -- what happened to these babies, what kinds of services, how many entered Head Start, how many qualified for 99-457 and received services from ages 3 to 5 prior to going to school, then how many received 99-457 services once they entered school. We included policy questions that we are continuing to ask of these data, since we are following these children, that are important in and of themselves, almost independent of our intervention. It is equally important to chart the services that children are receiving in communities.

Our eight communities are Little Rock, Arkansas; New York (Einstein); Seattle, Washington; New Haven, Connecticut (Yale); Boston, Massachusetts (Harvard); Pennsylvania; Miami, Florida; Dallas, Texas. We have collected data on these families from the time the child was 40 weeks to age 3, and now through age 8. We have collected a lot of data, not just the primary outcome data that we usually talk about.

Child care was documented by interviewing the mothers at eight points in the first three years of life. This data was collected on the follow-up group of 700 children. Most studies have retrospective child care data, while I have data at eight points during the child's first three years. We have very good health status data and the kinds of health services that these children received. Remember that having the children come in to see us frequently, they also saw a pediatrician at every visit. Three sites offered pediatric care, the other five could not. We let that vary, based on what sites were able to do. For example, Einstein Hospital in New York offers care and already had a follow-up program. That is very different than in Boston, where the vast majority of the babies have their own pediatrician. In those sites that lacked pediatric services we did act as a referral service for all of our children.

Our comparison group is a little different than the run-of-the-mill comparison, because they did receive so many services from us. On the other hand, I worry about what happens when we go away. In Boston we will probably continue see a very high level of services, because the community is quite service-rich to start with. That is going to be very different from what we see at Einstein, in the Bronx, which is very service-poor as a community, particularly in serving biologically vulnerable children.

Our sample included children who, at birth, had very severe neurological impairments. Down's syndrome children were excluded. We excluded about 30 children with very severe problems, but I do not think we have ended up with an abnormally healthy LBW population. At this point we know that we have a lot of children with neurological involvement, because we have looked at Cerebral Palsy children at age three. Fifteen, or 20%, of the under 1,500 gram babies had at least mild CP. The percentages of children over 2,000 grams went down to 1% or 2%. Our exclusions did not exclude the bulk of the children that you would see in high-risk follow-up samples. Of our children under 1,500 grams, 95% were tested for bleeds, and I believe 40% had a bleed.

The other exclusion criteria we used did not really work the way we thought it would, which is important for people designing programs. We wanted to make sure that mothers could receive the intervention in English, so we intended to exclude mothers who could not speak English. We did include bilingual parents, because if a person could receive the intervention in English, but also spoke Spanish, for example, he or she could stay in the trial. Interestingly, probably 25% to 30% of the sample are bilingual -- not all Spanish-speaking. We never expected that. We had expected a lot of bilingual parents at Einstein, Miami, and Dallas, and those were our three sites where we have Spanish speaking mothers. We had many more bilingual families than we had expected. We also

excluded babies who were transported after birth, because these were all tertiary care hospitals, and we also babies who lived more than 40-45 minutes from the child care center, because we did not want to have differential nutrition in the two groups, when it came time to enter the child care program. We also did not want to have the babies transported any further.

The primary outcomes in the study are in the area of cognitive development on the Stanford-Binet and Behavior problems at ages 2 and 3. The Richmond Gram checklist and the Achenbach checklist that has been developed for 2- and 3-year-olds were used. A series of health status measures -- serious morbidity, general morbidity, growth measures, mother's perception of child health -- were used to determine health status outcome. In general, we found no effects on the health status measures. The only effect we got was on the "not serious morbidity" index. A closer examination of the data shows that this was due to the children in center-based care showing a slightly higher incidence of respiratory problems. This data come from children ages 0 to 3. The data for the children as they have gotten older have just been collected and have not yet been analyzed, so we are only looking at the first three years of life. There are no effects of height, weight, growth, no effects on mothers' perceptions, no differences in activities of daily living, and no differences in serious morbidity. We do have an effect for clinic visits; half a clinic visit more. That occurs in years two and three and is linked to respiratory colds. Again, nothing serious. There are no differences for injuries and hospitalization.

Turning to behavior problems, we see a decrease in behavior problems in our babies who are in the intervention program. This was significant. When you look at the distributions, the split occurs at the moderate to severe cut-off. We also found a significant reduction in behavior problems at age 2 and age 3. No one has actually looked at behavior problems before. We also controlled for a behavior problem level at age two to see if there was an incremental effect of a third year of intervention. And there was. The other interesting thing was that we got the biggest intervention effect between ages 2 and 3, for those children who had moderate to severe behavior problems at age two. This is relevant for the targeting issue. For instance, we got the effect on behavior problems in just the group that we had hoped to have the effect on; the children on the Richmond-Gram who had scored above the clinical cut-off.

We have also looked at pro-social behavior on a new scale that was developed by one of our new site directors. We got increases in pro-social behavior in terms of peer competence. This is rated by mothers; this is not an observational rating. There were three different scales of peer competence. It was on the frustration tolerance scale that our intervention children looked better. We also looked at child behavior in a mother-infant interaction sequence that we collected at 30 months of age. All these data are primarily at 36 months, but we videotaped the mothers and babies in a problem-solving task and in a free-play setting at 30 months in the hospitals. We are finding that the children in the intervention group showed better tolerance to frustration in these problem-solving tasks.

We now have an objective code quota, not a maternal report, for those who do not like maternal measures. We collected data on about 725 in the interaction. We have a significant effect on a decrease in a negative affect directed toward the mothers during this sequence.

We did pay the mothers to tape and fill out the surveys. Often in high-risk follow-ups, people do not have the money to pay; they figure that the mothers are getting services, so they will come in. The problem is, not all mothers see it as a service, or the mothers may be losing time from work, or they have to pay for transportation. This is really true for poor mothers. If you can pay, it is best to do so.

One thing we did do for all our testing through age 5, was use gestational age, so we corrected for age. Nevertheless, when looking at our multiple regressions on the Stanford-Binet IQ, we still had a significant birth weight effect. Again, I have not looked at the five-year data, but my guess is, given the time trend of the birth weight going away, that we might not have any birth weight effect at age 5 again, because we still corrected for gestational age. We have a huge IQ effect. In the heavier babies, it is 13 points. Remember that the Stanford-Binet is a mean of 100 and the standard deviation is 15 to 16. In our sample, the standard deviation was closer to 17. We had more variability in our babies, which makes sense, because we have biologically vulnerable babies. But 13 points is a very big difference. Now, in our lighter babies, we had a 6-point difference. This is a huge treatment effect. We really did make a major difference in our babies' lives. We are finding that the big IQ differentials occur at 1,000 grams and under in our sample. It is an issue for people to consider. The group not effected are those under 1,500 gram with IQ's under 70. We looked at Black and white and high and low maternal education. The majority of the effects were found where the mother was a high school graduate or less.

Discussion *Julius Richmond*

I would just make one very brief comment about the origins of this study. It is very interesting that this program really came from people in the foundation world asking a very significant policy question. It was quite a remarkable study. Clearly some of the policy answers have resulted.

I think the judgment to keep a very heterogeneous population in the mix was extremely valuable, because the one site for the more affluent population with a rich panoply of services showed very little difference. It does give us some very significant leads. Would this be terribly expensive to carry out? I think that the costs would not be inordinately high if one remembers that the number of low-birth weight babies is relatively fixed. It is not going to change a lot. If you take 6% to 7% of the cohort of babies born in any given year, it really is not a huge number. And when you divide that by 50 states and multiply it by the cost, and since fair numbers of expenditures are going on anyway in this area, it is really not an inconceivable kind of program to develop and to fund.

AUDIENCE DISCUSSION

The issue of paying families to participate in the study was considered. While some do not see the need to pay parents who are also receiving a service, others argued that parents, especially poor parents, may need the money to compensate for time and expenses involved in participating in the research. Next, birth weight effects were discussed. In the multiple regressions, gestational age was used and there was a significant effect on IQ scores. The effects of birth weight decreased over time and were expected to be non-significant by age five. However, there were strong treatment effects by birth weight group. The largest IQ effects were found for the babies born under 1,000 grams. The policy implications of these findings were noted, especially given the heterogeneity of the sample, which allowed for an examination of treatment effects in the context of a range of other services.

Symposium 405 COPING WITH IMPENDING LOSS: VIDEOTAPES MADE BY HIV-INFECTED WOMEN FOR THEIR FAMILIES

Chair: **Susan Taylor-Brown**; *Discussant:* **Elizabeth Jeppson**

Coping With Impending Loss: Videotapes Made by HIV-Infected Women For Their Families

Susan Taylor-Brown

Women's emotional development takes place in the context of affiliation, attachment, and relationship (Gilligan, 1982; Miller, 1986, 1987). Surrey (1991) summarizing the self-in-relation theory of women's development notes that "for women, the primary experience of self is relational, that is, the self is organized and developed in the context of important relationships" (p. 52). Human immunodeficiency virus-infection (HIV-infection) threatens a woman's ability to connect with others -- her family, her friends, and community (Taylor-Brown, Williams & Metzger, 1991). HIV-disease threatens a woman's ability to connect with her community because: 1) it is stigmatizing, 2) it is life-threatening, and 3) HIV+ women fear that they will lose custody of their children if the diagnosis is known.

Acquired Immunodeficiency Syndrome (AIDS) continues to be highly stigmatized in American society. As a result, many who are HIV-infected do not share their HIV-status with others. Some women never disclose their HIV-status to their loved ones. A woman's ability to connect with others is threatened not only by her reluctance to disclose the diagnosis, but the terminal nature of the illness itself. Despite therapeutic improvements, AIDS continues to be a terminal illness. Death is the ultimate disconnection a person can experience. Coping with a life-threatening illness is challenging in and of itself, but to do so without the support of loved ones is excruciatingly painful.

The majority of HIV-infected women are of childbearing age and have children (Norwood, 1988; Taylor-Brown et al., 1989). Their HIV-status creates an entirely new set of circumstances to deal with, concerning their fear and ability to cope with the disease. If their HIV-status becomes known, they fear losing custody of their children. For many HIV-infected women, their children embody the positive aspects of their lives. HIV+ women also fear losing their children through their own deaths. A discomforting reality for the majority of HIV-infected women, which most mothers never expect or are prepared for, is that they may precede their children in death. So, they either deny that they are sick or claim to have another illness, such as cancer. The ages of the children may also preclude their understanding their mothers' illness. In addition to all of these stressors, it is not uncommon that an HIV-infected woman has children who are HIV+ too. HIV+ women are generally alone in dealing with all of these emotions and fears; feelings of isolation, guilt, fear of rejection, and, most importantly, the fear of being denied access to the one aspect of their lives that provides them with a sense of normalcy -- their children.

This self-imposed isolation contributes to a feeling of being disconnected from one's primary groups and the larger society. Miller (1988) explored the consequences of an adult being prevented from participating in mutually responsive relationships. When disconnections occur, a woman keeps more and more of herself out of her relationships, resulting in a constricted sense of self. Many HIV-infected women die without sharing their diagnosis with their loved ones. This represents a major disconnection, that keeps the HIV+ woman from engaging in mutually responsive and mutually enhancing relationships.

In an effort to address the HIV-infected woman's sense of isolation, the author developed a psychoeducational support group for HIV-infected women. The self-in-relation, or relational, model of women's development emphasizes the importance of women maintaining their primary affiliations that contribute to a sense of self (Miller, 1988). The relational treatment approach focuses on connecting or reconnecting women to their primary relationships. The group has flourished and the women have gained strength from each other's support. A central theme for HIV-infected women is, "Who will care for and love their children following their deaths?" It is a demanding task to focus on living while also making guardianship arrangements. The mothers repeatedly expressed a desire to "not be forgotten" and a wish to guide their children in the future (for a detailed description of the group, see Taylor-Brown, Williams & Metzger, 1991).

The present research study evolved from the women's desire to remain connected with their children and plan for their children following their deaths. The project involved HIV+ women making videotapes for their families; that is, videotapes focusing on

HIV+ various issues the women thought important to share with their children and families. These tapes are left for family members in the case that the woman does not survive HIV disease.

The use of videotapes in mental health services is gaining attention. Videotapes are used to prepare clients for therapy (Zwick & Attkisson, 1985) and enhancing practitioners' skills (Mackey & Sheingold, 1990; Sigal et al., 1980). When incorporated into mental health treatment, it is reported useful in group therapy (Cox & Lothstein, 1989; Gunn, 1978; Hogan & Alger, 1969; Weber, 1980) and individual treatment (Smith & Wolfe, 1988). Observing a videotape increases one's insight both as it relates to one's inner feelings and to one's understanding of the interactional field (Hogan & Alger, 1969).

At the Fourth Pediatric AIDS Conference, Wiener (1990) presented a unique application of videotaping: an HIV-infected woman made a tape for her family in anticipation of her death. Wiener reported that the mother and her daughter found the tape valuable. The daughter reportedly slept with her mother's videotape following her mother's death. While the use of videotaping in group therapy is well described (Cox & Lothstein, 1988; Weber, 1980), its application to HIV+ women is both novel and appears an important contribution to the relational treatment model, both theoretically and practically. It offers women a way to connect with their children.

The author sought to learn more about what information the women wanted to leave for their children. The project involved the introduction of videotaping to HIV-infected women. The women were offered an opportunity to produce a videotape about themselves for their families. This task was meant to help connect the women to their primary supports, from whom they risk being prematurely cut-off.

This paper presents the findings of a pilot study of HIV-infected women in upstate New York. A content analysis of the videotapes was performed to inform us about what issues women confronting life-threatening illness want to impart to their offspring. This information should shed light on psychosocial issues in this area, which may lead to more effective psychosocial interventions, particularly with African-American and Latina women who are disproportionately impacted by this pandemic. This knowledge will be useful not only in medical centers but all community agencies serving these families. For example, Head Start and day care centers need to provide support to the children from AIDS-impacted families. As the numbers of families confronting this illness increases, an enhanced understanding of the women's issues and strengths will help us to respond to this challenge more effectively .

Between November 1990 and May 1991 the author completed videotapes with five HIV+ women. Three were Latina and two were African-American. They had an average of 2.4 children (range 0-5), and one child was deceased. Participants were recruited from the HIV-infected Women's Group, co-facilitated by the author, from a community residential facility for infected women and their children and a community-based AIDS agency. Participation in the study was voluntary and did not influence group membership if a woman elected not to tape.

To date, all women contacted expressed a strong interest in taping. The decision to participate is a complicated one for the HIV+ women. Deciding to make a tape is emotionally laden because it symbolizes the woman's death and leaving her children. Women are encouraged to tape only if they feel ready to undertake the project. As one woman noted, "Just let me get my will done first. I can't say good-bye until I've made financial arrangements for my children." Also, some decided not to tape yet because they are not sick enough. The timing of the taping is very important to the women. They want to tape while they still look healthy, but are ambivalent about proceeding when they do not feel sick. Developing an opportunistic infection frequently stimulates a woman to tape.

In order to facilitate the women's desire to leave something for their children, the investigator developed individual videotapes of the women in which they share their hopes and concerns for their children and significant others. Prior to the taping session the author conducted an informative interview. Participants were encouraged to briefly outline the topics they wished to include in the tapes and issues they did not want to include. Then a separate meeting was arranged for the taping, which was done either in the women's homes or at a community-based AIDS agency.

The original research question in this study was, How would HIV-infected women connect with their children and loved ones? Would they offer anticipatory guidance and reassurance to them? What, if anything, would they say about being HIV-infected? Also, who would they cite as being supportive to them? The woman's perception of her hopes for her children's futures was central, and the presence or absence of caring figures for her children were of interest.

The tapes are 20 to 30 minutes long. Each woman retains a copy of the tape. The content of the tape is decided upon solely by the HIV-infected woman. If needed, the author stopped filming momentarily if a woman was too emotionally overwhelmed. Given an opportunity to share her grief, each woman regained her composure and continued. The qualitative approach focuses on the HIV+ woman's view of her life, and how she views her future.

The women wanted their families to have a remembrance of them in the event of their death. For all, the essence was a desire to connect with their families, even with children they no longer had custody of or contact with. One mother described how she always wanted to be there for her children. Her story includes the theme of being there spiritually, if not physically.

> Well Michael, Vanessa, and Jordan, this is your mother. Maybe I'll still be alive when you look at this tape, and maybe I'll be gone. I want you to remember one thing: I didn't abandon you, and we had some good times together. And I want you to keep them memories with you always...I'll always be there for you every time you look at this tape. If you just need to look at my face, just go to the tape and the VCR, and I'll be there. Even in spirit I'll be right there beside y'all....But, whatever you be, whatever you do, do it right. And then you'll probably get some satisfaction out of life. But

> don't go out in the streets, because you can get killed. Or just be on death row, like I'm on death row...just waitin'. And if you be on death row you wouldn't like it, 'cause it's real scary at times....For real.

It was very important to let them know how much they were loved. Some of the women described why they had lost contact with their children and their remorse about that. Women with histories of intravenous drug use were particularly apt to express sadness about their parenting. They shared a desire to care for their children despite being unable to when they were addicted. The women's desire to remain connected was further evidenced when two mothers asked their children to name one of their daughters after them. They did not want to be forgotten.

The role of HIV disease in the making of the videotapes was addressed in a variety of ways. At one end of the continuum were mothers who could talk openly about HIV disease. Women in this group discussed how HIV was threatening their lives and expressed their hope to survive it. Some women could only allude to the illness obliquely. At the time of the taping, none of the women had discussed HIV disease with their children.

The women shared powerful and optimistic visions for their children, from encouraging them to finish school to becoming strong and independent adults. They expressed a desire for their children's lives to be better than theirs had been. They selectively shared some of the negative experiences while encouraging their children to succeed. Interestingly, there was a lot of emphasis on self-defined success versus societally-defined success. In several instances, mothers expressed the hope that their children would have positive self-esteem, often a stark contrast to their own experience. As one mother stated:

> I am going to really try, to the best of my ability, to see to it that you have good self-esteem. I am not going ever to take that away from you. And I don't ever want to let any man or woman take your self-esteem away from you. That's the only thing you have. When you get right down to it, and if you don't have that, you really won't have anything. So no matter what anyone says, okay, if they're going to make you feel bad, you don't need them, okay? You don't need them, if they're going to try to make you feel less than a person, okay? You don't need them. Remember your Mom telling you that. I learned the hard way, and I don't want you to fall into that hole like I did. All right?

All respondents identified who they considered to be the greatest resources for their children. They encouraged their children to turn to these key figures as needed. The key figures were a blend of family, godmothers, and friends. Equally important, some women identified family members who were detrimental to the mothers' development. Specifically, they were physically or sexually abused by family members. Connecting with others can be problematic due to past disconnections. In one family, a woman was raped by her mother's boyfriend. Her mother did not believe her at the time. It was not until both women were diagnosed HIV+ that the rape was acknowledged. As a result of the trauma, this woman had a hard time telling her husband how much she cared for him: "Keith, I love you too much. I know I don't say it or act it. Everything I want to love either hurts me or dies on me. I do say things to hurt you, because I love you too much." Fortunately, her husband came to the taping appointment and watched the tape with his wife. The women advised their children to stay away from the perpetrators and to avoid exploitation by others. They also expressed their desire to be there to protect their children.

For most of the women, faith was a prominent theme in the tape. It helped them through past traumas and to make sense of the present life situation. The influence of faith was illustrated by a woman who was homeless and using heroin at the time of her HIV diagnosis. Her diagnosis served as a turning point in her life, in that she reconnected with her family, her religion, and stopped using drugs:

> I just really wanted to share with all of you the fact that even when sometimes life seems like it's going bad, that you have got to have faith in the Lord. Because you have to remember, even though now they say I have AIDS, I am happier and healthier than I have ever been. And when things just seem like you don't know where they're going and you seem like a failure, just remember my life and how far I've come, and think on that, and God will help show you a way.

Now, this woman is an AIDS educator and is writing about her experiences living with HIV.

This exploratory study of five HIV+ women's videotapes for their families provides a powerful picture of their connections to their loved ones. While the small sample size precludes the ability to generalize, the tapes do offer insight into the women's concerns. This preliminary analysis reveals complex issues confronting HIV-infected women in the end stage of their illness. Several themes emerge for further analysis and research that will enhance interventions for these women and their families.

The tapes offer some provocative material in working with HIV-infected women. HIV-infected women face a number of stresses as they cope with HIV. They have histories filled with past disconnections, which they try to bridge in the tapes. For example, the ability to tell a child you love him even though you no longer have custody is vitally important. This raises the important issue of preserving these relationships whenever possible.

The tapes suggest that HIV-infected women are confronting stresses independent of their HIV status. Incest and physical abuse were negative forces. The reported sexual and physical abuse is consistent with Allers and Benjack's (1991) findings. As they note, an unexpectedly large number of HIV+ clients report histories of childhood sexual and/or physical abuse. Practitioners will enhance their effectiveness by being sensitive to and addressing these dynamics.

The videotape provides the women with an opportunity to re-cast earlier negative events in a more positive light. The women are able to reflect on the connections of their past experiences to their current life situation. It also allows them to contradict negative messages about themselves that others may say to their children. All of the women acknowledged negative parts of their pasts and told their children how they grew from the adversity, thus presenting strength from painful and often unsavory experiences. Each woman was striving to connect with her children and family.

The self-in-relation theory of women's psychological development appears useful in understanding the lives of HIV+ women. As Miller (1988) reports, disconnections from significant relationships can impair a woman's ability to function. The relational treatment approach underscores the importance of reconnecting women to important relationships. HIV+ women continue to be isolated within their families and communities. Interventions need to focus not only on the individual women, but on society as well, in order to reduce the stigma of HIV.

In summary, self-portrait videotapes may play a special role in working through an HIV+ woman's emotional conflict surrounding impending loss, which is exacerbated by the stigmatized nature of HIV disease. It is a powerful method that appears promising and deserves further evaluation.

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Discussion *Elizabeth Jeppson*

The video is so powerful that I would like to give us all an opportunity to talk, so instead of following Susan's instructions I wanted to make my own personal comments about watching the video. One general comment is to be reminded of the power of video. We have made a lot of films in our organization, and one is called "Pediatric AIDS: A Time of Crisis," and it follows a family, all of whom are infected. The father in our film, on camera, says some things that he has never said before to his wife, primarily how he feels about being a former drug user and how it feels to him, as a man, to have infected his family, whom he loves more than anything in the world. His wife and children are able to hear their husband and father say those things.

Video also has the power to change attitudes. I think there is such a tendency to blame, particularly in the HIV epidemic, when we are talking about people who may have used drugs, to make them "the other." This is a woman who loves her children. It speaks to the power of the way people feel about their children. The punitive reactions we are having now in trying to deal with some very difficult challenges is clearly not the way.

Susan and I have not talked very much about the themes that are emerging in her work. We are writing a book about disclosing the diagnosis of HIV within the family, whether it is a parent who is infected or a child who is infected. Many of the themes that Susan finds are also emerging as we interview families all across the country. When we embarked on this project, I had a bias, coming from an early childhood background, that, of course, it is better for children to know. While I still think it is better for them to know, that is only true in the best of all possible worlds. Where AIDS is concerned, we do not live in the best of all possible worlds. As I hear family members -- mothers, fathers, grandparents -- talk about their reasons for not disclosing their diagnosis, they are very good reasons. The unpredictable societal reaction is a strong reason. Women value relationships; by revealing the diagnosis, they put themselves at a risk for losing the very relationships that they count on. There was another reason. "If I tell them that they have HIV, they will want to know why they have HIV, and then I will have to tell them that I am infected and that their dad is infected and that we use drugs" -- and it is a domino effect. What we are learning in the process of writing this book is that, given adequate supports, family-to-family networking, the relationship with caring professionals, and time, most families decide to talk to their children about it.

Like everything else, it is a process. The process is as individual as the family members. For some families, it happens in two weeks. For some families, it happens in eight or nine years.

I should tell you that we have been working with the National Network of Families Caring for Kids With HIV. We have birth parents, adoptive and foster parents, extended family members, the families in the network -- their children or they themselves were infected through all different modes of transmission. All the fears that people sometimes have about how you cannot mix these different groups of people is just not true. One of the things that has been very strong for all of these families has been the spiritual element, and when this mother talked about God, it connected everyone there. For 99% of the families whom we have gotten to know, a higher being plays a very significant role in their ability to cope.

AUDIENCE DISCUSSION

Three questions were raised. The fist question focused on how the presenters spoke to the women about their use of the tape. Taylor-Brown replied that different women choose to do it differently. An important consideration is where the women store the tape. Taylor-Brown is asked by some women to keep their copy of the tape. They sign a variety of releases that can be changed at any point in time. Some women make the tape a part of their will, to be shown to their children after their death. Even the woman's ability to watch the tape herself is a part of the process.

Whether the children of the mothers who talked to Jeppson were themselves HIV positive was the second question raised. Jeppson responded that it varies. The transmission rate in the literature is between 30% and 50%. At the Children's Hospital in Detroit, in the first cohort of children, the rate of infection was higher. What has to be looked at is how advanced the epidemic is. In a population where women are sicker, there may be a higher rate of infectivity. Newark children, for example, do not seem to survive as long. In the Detroit study of 83 children, only three had died from 1985 to 1989, which is an excellent rate. It seems that there are regional differences. The children in Michigan had received AZT. They were one of the first groups to receive the drug. With AZT treatment, people are surviving and doing better for longer periods of time. The combinations of medications that people are using now is quite dazzling, continues Jeppson. All of this contributes to the survival rate. The Levind and Dubler article in the Milbank Quarterly is highly recommended for those who are interested. It deals with the risk of transmission. It is one thing if a woman gets pregnant once, but she is treated like a pariah if she gets pregnant again. What the article does is help lay out the issues. In health care, one does not say,"You shall not have children." This is true for genetic disorders as well. The job is to look at different ways to help women make informed choices, rather than to take a paternalistic, punitive stance.

The third question concerns the issue of breastfeeding in HIV positive mothers. Taylor-Brown informed the audience that the Center for Disease Control recommends that women with HIV positive not breastfeed their infants, but again it is still an issue of informed choice. The World Health Organization recommends breastfeeding when there is no sickness. Recent literature on the subject is mixed.

Symposium 406 THE STATE OF EARLY CHILDHOOD SERVICES: IMPLICATIONS FOR PRACTICE AND POLICY

Chair: **Robert B. McCall**; *Discussant:* **Ronald Haskins**

The State of Early Childhood Services: Implications for Practice and Policy *Robert B. McCall, Ethel M.Tittnich*

The confluence of the War on Poverty of the Johnson years, which promoted Head Start, and the influx of mothers into the labor force during the last two decades has produced one of the most rapid and massive social changes in history. One aspect of this movement consists of caring for and educating children birth through 5 years of age by non-parents, typically outside the home.

Growth is uneven in any rapid and massive social movement. Demand for services may outstrip supply, the cost of services to the consumer may be too high while the earnings to the provider may be too low, personnel shortages may exist and those personnel available may be inadequately or inappropriately trained, and the service programs offered may vary in quality and purpose, with the rich able to afford the most desirable and the poor making do with inadequate quality or no services at all. All these potential problems confront early childhood services today.

In this paper, we present a contemporary snapshot of these issues as they exist in one state, the Commonwealth of Pennsylvania, although the data generalize quite well to the nation as a whole. We present the results of three statewide surveys conducted in 1989 (McCall et al., 1989): 1) a random-digit dialed telephone survey of 987 households having a child between birth and 8 years of age (79% response rate); 2) a mail survey of a stratified random sample of 422 registered agencies that deliver early childhood services, including public schools, private schools, Head Start, and licensed day care (29.4% return rate); and 3) a mail survey of all training institutions in the state that prepare personnel to work in such services (42, or 39%, responded).

Some have argued from a strict, global supply-and-demand standpoint that the supply of services has kept pace with the increasing demand for such services, and therefore more services are not needed (Institute for American Values, 1989). Indeed, from

the simplest supply-and-demand perspective, the data do indicate that nationwide the supply of services exceeds the apparent demand (Hayes, Palmer, & Zaslow, 1990; Kahn & Kamerman, 1987). But such statistics ignore the quality, cost, convenience, and type of service. Further, parents do not say they need services when asked -- they make some alternative arrangement, from not working to using inadequate or non-preferred services, or leaving children home alone. So it is often difficult to determine if a supply problem exists in this field.

Our surveys reveal several signs that preferred services were not in adequate supply (McCall et al., 1989; McCall, Tittnich, & Snyder, 1991): 1) One service is not enough for one in five children birth through 5 years who use services at all. In Pennsylvania, 52.7% of children birth through 5 years of age (an estimated 513,453 children) attend some early childhood service delivered by a non-parent, but 19.5% of these need to use two or more services to adequately fulfill their needs, presumably because of the limited hours, cost, or convenience of their main service 2) Approximately half of Pennsylvania's young children birth to 5 years of age who attend services rely on services that are not monitored for standards of health, safety, and quality of care and programming, and this is more true of low-income children than those of more affluent parents. Specifically, 25.3% rely on relatives, 19.5% are in family day care, and 5.2% are in home care, none of which are monitored for standards of quality. While many of these arrangements may be excellent, perhaps even better than monitored facilities, it is also likely that some are poor to abysmal. The fact is that we know very little about the quality and safety of these services. 3) When agencies were questioned about capacities and enrollments, full-day services were operating at or near capacity, and many had waiting lists, but places were available in half-day services. 4) Low-income families who work full-time have difficulty using educationally preferred services. Educationally oriented services, including Head Start and most preschools, overwhelmingly operate half-day programs. In contrast, the average Pennsylvania child birth to 5 using services spent 26.8 hours in service, indicating that the preferred numbers of hours of service exceeds half-time. Even so, parents using preschool services were less, not more, likely to use supplementary services than parents who used other types of services (e.g., day care). This indicates that the people who are using the best educational services do not want or need to supplement them. Conversely, the low-income family attempting to work full-time to become self-sufficient is less likely to use the most educationally beneficial services, even publicly supported services (including Head Start), because they must arrange for supplementary services and transportation, or, more likely, they opt for full-day child care programs that are presumably of less educational benefit. Ironically, then, the fact that most publicly supported preschools are half-day essentially makes it difficult for those low-income parents who want to work full-time to use them. It may also discourage some low-income families from working. 5) During the last year, parents of one in eight (12.5%) children birth to 5 years who used an early childhood service changed their main service, indicating dissatisfaction with the nature of the service and instability of the availability of the service. Families changed their main service primarily because they sought better or more convenient services (37.2%) or because the service was no longer available (35.2% of those who changed from non-center day care). 6) Some parents leave their young children in the care of older children or home alone. Parents of 12.5% (an estimated 52,634 children) 6- to 8-year-olds reported that their children stayed with older children (average age 13 years), and 2.5% (10,527 children) stayed home alone in the week before the survey. While we did not ask this question of younger children, we did observe that mothers of infants birth to 2 years were more likely to work if they had older children in the home. One (but not the only) interpretation of this observation is that mothers used the older children to provide care for their infants.

While it may be the case that excess supply of services exists, this is largely confined to family day care services. More preferred services, including full-day and preschool services (including Head Start), are in much greater demand and shorter supply, which is why waiting lists are reported in many such programs and centers.

Low-income families in which all parents work full-time have a special problem using educationally preferred services, which typically are available only for half-days. The working poor must be able to afford supplementary care and arrange for it, or not use these educational services. The indications are that they do not use them as much as they might. Moreover, public support for such services in Pennsylvania has not kept pace with the supply of other services. For example, between 1986 and 1989, licensed and registered private providers of early childhood services increased capacity by almost 48%, whereas publicly funded services for low-income families (e.g., Head Start) did not increase capacity at all.

In addition to supply problems, certain public assistance policies limit the ability of the poor, especially those attempting to become economically self-sufficient, from using services. For example, scholarships at community colleges or universities are counted as income when determining the eligibility of people, including single parents, for public assistance. Title XX monies are available to students within the income guidelines if those students are attending job training, but not if they or their spouse are attending general education, which is likely to lead to better paying jobs. Further, Title XX vouchers can be used to pay for a variety of day care services, but not to purchase educational preschool services. While such policies have a financial and social rationale, they also have the effect of keeping low-income families from becoming self-sufficient or limiting their children from using the services purported to be educationally most beneficial, even those designed and publicly supported for their benefit.

The finances of early childhood services can be summarized simply: for substantial numbers of families, early childhood services are too expensive, especially the preferred services. At the same time, employment as an early childhood provider pays an insufficient wage. In Pennsylvania, the average full-fee service for children birth through 5 years is $2.26 per hour. Therefore, if you

must purchase full-fee services for full-time care, including the cost of transportation, the average in Pennsylvania is approximately $100 per week.

Thirty percent of parents do not pay full fee for their services (e.g., relatives, Title XX vouchers, reduced fees). Most of these benefits are limited to relatives and day care rather than to educational preschools. The major exception is Head Start, but it serves only 4.1% of all the 3-to 5-year-old children in Pennsylvania. As a result, low-income families are more likely to use informal, unregulated or un-monitored, less expensive services, or they simply do not work at all because they cannot find or afford preferred early childhood services.

The latter possibility -- namely, that mothers do not work because of the lack of available or affordable services -- was assessed in two ways. First, mothers of children birth through five were asked an open-ended question inquiring about why they did not work. Of mothers who did not work, 10.5% said they did not do so because they could not find or afford early childhood services, and these rates were approximately twice as high (e.g., more than one in five) among low-income groups.

Second, we asked directly whether unemployed mothers would seek training, education, or employment if early childhood services were affordable and available. Approximately 39% of all non-working mothers said they would, with the rates nearly twice as high (three out of four) for low-income unemployed mothers. What would actually happen if services were available and affordable is unknown, but the percentage is likely to fall between these estimates, indicating that approximately half of low-income women would enter training or the labor force if appropriate early childhood services were available and affordable. It is unlikely, however, that the provision of early childhood services alone would be sufficient. Training and jobs must be available, of course. Many unemployed low-income mothers do not have the skills without specialized training to command a job that would permit them to be self-sufficient, and many could not afford to be trained without public assistance, especially single parents.

Government is not the only potential underwriter of early childhood services, although the public frequently looks to it first for such support. Indeed, American industry is highly vested in early childhood services, because unemployed mothers are the single largest, most efficiently available source of labor to meet the projected rising labor needs of the 1990's. But in Pennsylvania, a state hit hard by unemployment in its smokestack industries a few years ago, employers rarely offered early childhood services and benefits, and, perhaps surprisingly, families used them infrequently even when they were available. Specifically, flexible working hours were the most commonly offered employer-sponsored family benefit, which was available to 31.8% of the families and used by 80.2% of the eligible families. In contrast, locator services, subsidized care, and placement services were offered to less than 5% of the families and used by a quarter or fewer of those eligible for such benefits.

The lack of employer-sponsored benefits in Pennsylvania is often explained simply by the fact that it has not been necessary for companies to make special efforts to attract and hold employees in a relatively depressed economy, although the employment picture is much better now in some urban areas. But why do people not use such services when they are offered? One possible explanation is that when companies do offer or recommend services, they are often of excellent quality and relatively expensive, even with employer support, for the vast majority of employees. Also, since parents prefer to leave their children in services near their home rather than near their employer, it may be difficult for their employer to identify or support services that substantial numbers of employees will find convenient. Presumably, flexible benefit packages could help to solve this problem.

If the fees for early childhood services are too high, the salaries for providers are too low. In Pennsylvania agencies other than public schools (in which personnel are paid at least twice as much), the average director or supervisor in the first year was paid $13,728 for a 12-month year in 1989, and more than three out of four of these individuals have college degrees and approximately one out of four have graduate degrees. For primary care providers in their first year, the average 12-month salary was $9,228 per year, which is near the new minimum wage and below the poverty line for a family of three. Slightly less than half of these individuals have college degrees. After five years, salaries are 25% higher for both categories -- increments roughly equal to inflation rates. Indeed, for some providers it costs nearly as much to become educated per year as the student is likely to earn upon graduation, and some students earned at higher rates while putting themselves through school than they were likely to receive when employed in their chosen career. It is the case that we pay people more to park our cars and collect our garbage than we pay them to care for our children. In one sense, the people providing services to children are educated substantially better than they are paid relative to other occupations. But it is not clear that they are educated specifically in child development or early childhood education, and those who are specifically prepared in these areas may not take jobs in these fields.

First, approximately 30% of the directors/supervisors in day care (in contrast to public and private preschools) did not have college degrees, and approximately 30% of the primary care workers had not graduated from high school. Second, although the public schools had high standards for general education, their personnel were not much more likely to have specific training in early childhood than were staff at non-public school agencies. This derives partly from the fact that in Pennsylvania a single credential covers birth through 8 years of age. So the educational program focuses on the primary grades rather than the early childhood years. Further, there are very few public school preschool jobs available, and the salaries for non-public school early childhood personnel are sufficiently low so that graduates of early childhood education programs are unlikely to take jobs in the field when they can be employed as primary school teachers at substantially better salaries. In fact, an estimated 30% of graduates in early childhood education and early childhood development did not take jobs in this field.

Third, training of professionals in this field is bifurcated between those taught in schools of education and credentialed as teachers and those taught in child development programs and not credentialed as teachers. In the extreme, the teachers are better educated generally but not necessarily specifically in early childhood, but they are paid twice as much. The child development graduates are more highly educated in early childhood, but paid half as much. It would seem that a joint interdisciplinary training program and some balancing of salaries should be explored.

The lines between child care and educational preschool programs are becoming blurred, but certainly the experience of children in early childhood services ranges between the provision of minimum care and highly intense educational preparation for schooling. How do providers and parents view the programs they are associated with?

A major contradiction occurred when we asked providers about the general versus specific nature of their programs. Public schools that operated early childhood programs uniformly indicated the primary purpose was to improve the development of children; nearly all said they were primarily teacher- as opposed to child-directed, and all used some form of curriculum guide. These rates were much higher than for non-public school agencies.

In contrast, the public schools were slightly less likely than any other type of agency to say they deliberately taught a list of eight specific common academic skills (i.e., colors, shapes, letters, counting, drawing, reading, addition) and no more likely to teach four specific common social skills (separation from parents, cooperative play, cooperation with teachers, feeling good about oneself). In short, the most highly educated staff is actually teaching young children the least, both in terms of academic readiness and social behavior.

We have no data to explain this apparent anomaly, but it seems to contradict the prevailing belief among those outside the public school system that the public school is too academic, at least in terms of teaching the typical readiness skills (see parents' perceptions below). One possible explanation is that public school early childhood teachers are under pressure not to teach those behaviors that are typically taught in kindergarten and first grade, so as not to disturb or force revision in the curriculum schedule.

Parents of children currently enrolled in early childhood services were generally satisfied with them. Parents of children currently in preschools and in Head Start were more pleased than parents using day care, especially with respect to their child's personal development, academic preparation, and experience with arts, music, and physical activities.

While parents of children now in kindergarten and first grade look back on their children's early childhood experiences and are generally satisfied, they are somewhat more critical. Specifically, parents said that public school preschools underemphasized personal development and academic preparation (conforming to the conclusion drawn above), while parents of children who formerly attended private and parochial preschools were more likely to criticize them for having overemphasized almost everything, especially academic preparation.

Parents of children who had attended public school preschools and day care reported that their children adjusted slightly less well to kindergarten than children who attended private preschool services or no early childhood service at all. In direct contrast, public school teachers felt that children who attended their own public school preschool programs adjusted best to kindergarten and first grade.

Clearly, parents and public school teachers differ in how they perceive the benefits of different types of early childhood services and the adjustment of their children to kindergarten and first grade. While some of these perceptions are associated with the type of parent who sends their child to different early childhood services, our data indicate that not all of these differences in perception can be attributed to that selection bias.

The public schools provide a convenient system of physical and administrative structures for early childhood services, especially for publicly supported services. But in Pennsylvania the current nature of the personnel preparation is less suited to early childhood than to the primary grades, and parents seem to favor private programs over public school programs. In fact, while 70% of parents thought the public schools should offer programs for 3-to 4-year olds, only 51.9% would prefer to send their children to such a program at the public schools as opposed to a private agency.

Before government hands funds to the public schools for preschool education, it should permit subcontracting to private agencies, and it should examine closely the personnel preparation and credentialing system and the nature of the programs to be implemented.

Agencies were asked if readiness tests or other formal assessments of a child's abilities were used as criteria for entrance into their programs. While such testing was rarely used in this way for 3-year-olds, 25% of the public school preschool programs for 5-year-olds and 22% of private preschool programs for 5-year-olds said they used readiness tests as an entrance criterion. No Head Start Program used entrance tests. Presumably, children who do not pass such tests are denied entrance into any program at that agency or are admitted to a "transitional" program that is supposed to teach them the skills necessary for participation in the "regular" program.

There are several good reasons why readiness tests should not be used as an entrance requirement for early childhood programs. 1) The tests do not predict performance in such programs very accurately. While a readiness test may predict performance better than simple chronological age, it does not do so very accurately (Meisels, 1989), and some commonly used tests (e.g., Brigance) have very little reliability, validity, or standardization data available at all. Even if good psychometric data were available, a test must be shown to predict success in a particular program, not just in any program, and rarely if ever has a test been validated for

the particular program for which the test is being used as an entrance criterion. 2) So-called "transitional" programs have not been demonstrated to be effective in remediating children compared to the sheer passage of developmental time. Children do not improve relevant skills any faster in such programs than if they have no special program (for a review, see Meisels, 1989), and it has been argued that money currently spent on extra-year transitional programs is essentially wasted and might be better spent enrolling more children in regular programs and in training teachers and aides to more effectively deal with the heterogeneity of skills in such services (Meisels, 1989). 3) Although hardly conclusive and without controversy, a case can be made that heterogeneous ability grouping is at least as good or better for young children of all ability levels than homogeneous grouping, and this argument applies to programs involving and not involving handicapped children (e.g., Strain, 1988). 4) Public agencies, such as public schools, are likely to be under legal liability if such tests are used as entrance criteria. IQ tests have been legally banned in some states as criteria for entrance into special programs on the basis of discrimination. The IQ test does predict success in school, and some remedial programs have been shown to help elementary-aged children catch up. How much more liable are preschools that use readiness tests that do not accurately predict performance in early childhood programs and where transitional programs have not been shown to help students catch up?

More preferred services are needed. The preferred services especially needed are full-day services of all kinds and especially educational preschool services, including Head Start. More support for early childhood services is needed for low-income families, especially for full-day and educational services that would help low-income parents who wish to work full-time attempt to become economically self-sufficient. Such support needs to deal not only with the financial cost of such services but also with public policies that make it impossible or difficult for low-income parents to work full-time or to receive education and still qualify for support for early childhood services and public assistance. Even with substantial current public financial support, early childhood services are too much to pay for low-income families and too little to earn for the majority of providers. Free-market forces are not now sufficient to balance cost and wages in this industry. Additional support must come from either government or private industry. Integrated interdisciplinary training programs are needed at the certificate, bachelors, and masters degree levels to help blend the two different and inequitable educational preparation tracks into this field. The preparation of early intervention personnel has moved in this direction, but such movement has not been seen in the preparation of personnel to work with non-handicapped children. While most parents say they have been satisfied with their children's program, some complain that such programs are too intensive and too academic, while others complain that they are not intensive or academic enough. Perhaps a better match between program and child is needed -- a goal of the NAEYC's push for "developmentally appropriate practices." Before the public schools are used as the administrative vehicle for public support of early childhood programs because of their established physical and administrative structure, more attention must be paid to the nature of the programs they offer, the training of personnel specifically in early childhood development, and the fit of the early childhood program into the total elementary school curriculum. Readiness tests should not be used as entrance criteria into early childhood programs, but might be used to guide teachers in individually tailoring early childhood experiences to fit the needs and abilities of individual children. So-called transitional programs should be eliminated and the funds invested in providing more regular-program services and training personnel to handle the diversity of skills and maturities of children in such programs.

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Discussion *Ronald Haskins*

I am going to discuss three points and add a Washington perspective with some attention to what is likely to happen, or seems most plausible. Then I will go back and open it up for discussion. I have been concerned for a long time and have discussed with a number of people in the administration and with people in the academic world the question of whether Head Start is day care, trying to get children ready to go to public schools, or is it a way to help mothers get into the labor force?

Now, I do not want to offend anybody, but I really do not see any special reasons why it cannot be both. I do not necessarily mean that it has to be the same people and the same building, but what I think can happen in this system is that we can begin with Head Start. Three-quarters of the programs are half-day programs. The only ones that are consistently full-day programs are the programs for migrants; that is my understanding from ACYF. We can start with that kind of half-day program with curriculum and all the various regulations that ACYF puts on these Head Start programs, and then build what a lot of people call "wrap-around care." And we have a number of new Federal sources of money to do that. There is nothing in the Head Start regulations or in the statute of the original Head Start Act or any of the amendments that prohibits a locality from using the funds for full-day programs. This really is a local decision about how to use the Head Start funds. Now, I think the administration position is to ask, "Why? We want a high-

quality half-day program; we ought to keep the focus there." But I think that with a combination of Head Start funds and other funds from the Federal and/or state government it should be possible to address this issue that McCall raises, particularly for low-income people. If there is any remarkable consensus in Washington now that did not exist five and especially 10 years ago, it is that low-income mothers should work. We gave gotten beyond this battle about whether mothers ought to be in the labor force. I am not saying that everybody agrees, but if you look at the Welfare Reform Bill passed in 1988, clearly the direction is to get mothers into the labor force. And Head Start could be an important part of that puzzle. In the recent reorganization of HHS, Head Start will now be in the same general department as AFDC and all the JOBS programs (JOBS is the acronym for the Welfare Reform legislation that tries to encourage welfare mothers to work. So they will all be administratively in the same place, and the new day care money from the new grants are also in the same place. It looks like a good possibility that they will be administered, if not by ACYF, then closely in that vicinity. So even fairly far down into the HHS organization, all the Federal bureaucrats will know each other, talk together, and surely that should promote some kind of cooperation between these programs. Maybe it will not, but it should.

The first issue is how to use this Head Start money to keep the high quality of Head Start programs and still convert to a full-day program, make it easier for parents so they do not have to drive their kids over half the city or get them to relatives, and do all these things that working mothers and fathers are so familiar with.

The bill that we passed last year includes the Child Development Block Grant -- that is what was left of AFDC after the Congress got through with it. Then there is the At-Risk Families Grant, which is in AFDC and specifically a welfare grant. Its purpose is to help people, especially mothers, who might need welfare unless they can keep their job. Then there is Head Start, and the small AFDC Day Care Licensing Grant -- a compromise in the Congress to try to get some money to help states improve quality. And then there is the Earned Income Tax Credits, by far the largest part of the program. That is money paid directly to families. They can use it for day care, but they do not have to. Some people quibble about whether that should be called day care money. It is earned income tax credit; it is cash to parents. If they want to use it for day care they can, but they do not have to.

Now, on the other side, are the other major Federal day care programs. There are actually now over 40 Federal day care programs if you include the military programs. If you are on welfare, and in training or job search or any of the various parts of that program intended to help a mother find a job, then you have an entitlement to day care, and that is what that money is. If you then get a job and go into the work force, you then have an entitlement for one year of day care; the state is going to actually charge the mother some money.

Another program is Title XX, the Federal part. There are no Federal rules and the states can do whatever they want to with it -- they can spend it on old people, young people -- there are no income requirements. It is a block grant in the most meaningful sense of that term. It is $2.8 billion distributed to states according to their population, and they can spend it as they wish.

The Child Care Food Program is a subsidy for breakfast, lunch, and snacks for children. That program is expanding, and is expected to reach $1 billion this year, and be almost $1.6 billion by 1995.

The Preschool Grants for the Handicapped, and then the Dependent Care Tax Credit, a tax code credit or refund for parents who use day care, unfortunately is not refundable. This means that if you did not pay taxes, then you cannot use it, and any family that earned below $15,000 cannot profit from this, because they have to have paid taxes. This is a quite regressive program. It does not help low-income families very much, so it will not be part of the puzzle that I am addressing here, which is, How can we take these monies to provide the kind of wrap-around service that McCall is concerned about? I think that is the second extremely important issue.

The third issue is cost, especially teachers' salaries. Let me take a blunt approach to this and, since you are going to have plenty of time to discuss, you are free to disagree with me, so maybe you won't be too mad! The costs that McCall estimated, $2.26 per hour, are actually above the national average, if you include roughly the 40% of people who do not pay anything. The national average for parents who pay for children of preschool age, with a mother in the labor force, is about $50 a week. Forty percent of the mothers in the labor force who have a preschool-age child do not pay cash for their day care; they have a relative, some type of bartered arrangement, or some other informal arrangement in the neighborhood.

In 1987, parents paid about $15 billion for day care, so maybe that is up to something like $18 or $19 billion. The Federal government paid about $8 billion this year. There is probably $27 to $29 billion total that is paid for day care, including all these programs I just discussed with you, plus what parents pay out of their pocket. Now you might have to subtract $3.5 billion or so from that, because we do not know how the Dependent Care Tax Credit gets treated; we do not know if parents subtract that when they tell the Census Bureau researchers how much they pay for day care. And McCall has already given a baleful discussion of how much day care teachers make, which really is a miserable amount of money; in many cases it is barely poverty level wages.

So now we raise the question: Where does the rest of the money come from? Candidate number one is the Federal government. We passed significant day care legislation last year, which in itself suggests we will not address this issue again soon. As you know, the Federal government has serious budget problems. The appropriations committees this week and last week have squeezed like mad just to eke out $800 million, which is a drop in the bucket for this problem. My prediction is that the Federal government is not going to spend significantly more money on day care in the foreseeable future, at least for the next five years. So I do not see that there will be significant relief from the Federal government to increase teachers' salaries in Head Start or outside Head Start. The second source is state money. And I hardly need to say another word about states. We have 30 some states that are in

deficit, we have states all over the country increasing taxes and cutting programs. I really do not think, with a few exceptions, that it is realistic to think that states are going to be able to put up the billions of dollars necessary to give significant increase to teachers' salaries. The third possibility is parents. This may be the most debatable. Many people feel that middle- and upper-income parents do not pay enough for day care, and if you had the right kind of financing arrangements you might be able to get them at the local level and, in effect, subsidize day care for low-income children. That would not work in Head Start very well, but in other day care programs it might work. Parents may be a potential source, but I would point out to you that this is a vibrant market out there, growing like mad, with lots of different choices. You may not like the choices, but they are out there, and parents are very cost-sensitive, especially on a mother's income. They are very reluctant to go above 15% or so of the mother's income, and once they hit that point they may start looking for other arrangements. So I do not think there is a lot of money coming from parents.

This leaves what I think is one possibility that none of you will like at all, and that is ratios. If you double the ratios, you double the salaries. In a recent survey, 95% said that was the most ridiculous idea they ever heard, so I leave you with the choices. I have not endorsed anything. I am just going over the possibilities here. Where are the additional finances going to come from? I would love to hear what you have to say about this.

One additional point concerning money for Head Start: regardless of the current budget figures, I predict that we will get $2.1 billion out of Head Start this year. That is a maximum. I think that if we got $12 billion total over the five-year period out of Head Start, that would be a remarkable achievement.

So, with that, let me stop and go back to the first issue, and then see what people in the audience want to say about this -- the issue of using Head Start as part of a way to get full day care for parents who work.

AUDIENCE DISCUSSION

Discussion centered around three issues: 1) job-training/employment/child care; 2) full-day Head Start; and 3) funding/taxes. An audience member asked if anyone had envisioned trying to build linkages or coalitions with private corporations who have job training programs that later lead to employment and provisions for on-site child care. Another audience member commented that in order for private-industry employers to take someone into their job training program, there must be some incentive for them. It is unlikely, with the present economy, that an employer would do it as a goodwill gesture. Haskins concurred with this view and added that it is very unlikely that employers who have entry-level jobs in the service industry would benefit and be willing to offer child care to those trainees. According to McCall, when parents were asked whether they were eligible for employer-sponsored benefits, and were shown a whole list of possible choices, 31.8% said they were eligible for flex-time, a benefit most frequently offered by employers. About 80% of those eligible actually used the benefit. It turned out that less than 5% of the families offered other benefits, such as locator services, subsidized child care, placement services and actual provider care, took advantage of these benefits.

The audience discussion continued with an exchange about full-day Head Start. It was emphasized by Haskins that there is nothing in the law that precludes full-day services to Head Start children and that the 1990 Reauthorization Act actually explicitly allows full-day services. McCall noted that having full-day services with the same amount of money would cut the number of children able to be served. A member of the audience pointed out that Head Start's premise is that parents are part of the decision-making process. Therefore, if a particular group of parents want full-day service, there should not be policies that preclude that. On the other hand, the goal always is to serve as many children as possible. Technical assistance to programs would be important for helping directors choose the most effective way to provide extended-day services, whether it be wrap-around, full-day or another strategy that combines several funding sources.

The last issue was how to get more money into Head Start to expand services, increase teacher salaries, etc. An audience member from Canada mentioned that, in her country, one-third of people's income is paid in taxes, but services like medical care and child care are subsidized by the government. The subsidy goes directly to the parents who then choose the center they want for their child. When asked by another audience member if people were satisfied with the program, the member replied that people complain about high taxes, but they also realize that their services are of superior quality and offered to all, so they are basically feel good about it. McCall added that in the Pennsylvania survey, 76% of those surveyed said they were willing to have their taxes raised for early childhood programs. That percentage did not vary as a function of whether they had children.

Symposium 408 CULTURAL VARIATIONS IN RESPONSE TO PARENT ACTIVITIES IN HEAD START

Chair: **Robert Leik**; *Discussant:* **Barbara E. Shaw**

A Family Systems Model For Parent Enrichment in Head Start *R.K. Leik*

This paper presents a limited theory about family aspects that affect a child's benefit from early educational experiences, especially Head Start. The theory treats the family as a system that influences and can be influenced by involvement in Head Start. "Systems" or "ecological" approaches are common (see Hill, 1971; Aldous, 1978; Broderick and Smith, 1979, for family system theory;

Bronfenbrenner, 1979, 1986 for ecological theory). Yet basic assumptions about family interconnectedness are often made without specifying how the system actually operates.

Our purposes here are to: 1) consider general assumptions about families as systems relevant to a child's benefit from preschool experience, especially the child's sense of social acceptance and competence (Harter & Pike, 1984); 2) note pertinent findings from theory and research; 3) discuss the relevance of the child's independence for the processes under analysis; and 4) provide specific family system/family ecology propositions about a small set of variables. The companion paper (Chalkley et al.), provides evidence from the Head Start Family Impact Project, a one-year study of the consequences of parental involvement in the Head Start program (see also Leik, Chalkley, & Peterson, in press; Chalkley & Leik, 1991).

The operation of any system reflects: 1) characteristics of its parts (e.g., a member's skills or task efficiency); 2) properties of the system itself (e.g., structural form, degree of specialization); and 3) actions taking place both within the system (interactions) and across its boundaries to the system's environment (transactions; cf. Hill & Hansen, 1960; Rogers, 1973). Therefore, for our purposes, independent variables should include characteristics of family members, properties of the family as a whole, and actions taking place both within the family and between it and Head Start. By "family properties" we mean system-level aspects such as cohesion rather than simply summary functions of individual characteristics. Five very general premises, with brief examples, follow. A1) Individual characteristics of the child's parents will influence the extent of benefits gained from involvement of the child in an "outside" learning environment (for example, low parental/low self-esteem may discourage children from participating fully in a program like Head Start). A2) Individual characteristics of the child's parents will influence properties of the child's family (parents who feel that their lives are out of control may try to exert rigid family rules, especially for their children). A3) Properties of the child's family will also influence the extent of benefits gained from the Head Start experience (a family with a total lack of rules is not likely to facilitate their child's daily participation in such programs). A4) Involvement of the parents as well as the child in the preschool learning environment may alter parent characteristics and/or family system properties and/or relationships between those variables and the child's benefit from the Head Start experience. A5) Changes in the child as a consequence of involvement in the preschool learning environment may alter parent characteristics and/or family system properties and/or relationships between those variables and the child's benefit from the Head Start experience.

Despite their gross generality, these assumptions address the family as a system with regard to the involvement of a member in an outside setting. A1 and A3 specify classes of transaction variables, A2 specifies systemic interrelatedness, and A4 and A5 specify feedback. While these are only a subset of the variables one might wish to examine, our research has demonstrated the overall validity of the assumptions. A sixth premise suggests that not all families will show the same specific patterns -- A6) is: the rules under which a family operates condition the relationships specified under assumptions A1 through A5.

The term "rule" is used here in the Broderick and Smith (1979) sense: prescriptions for "familial response to any of a wide range of possible inputs." Ideally, family rules would be measured directly. We believe, however, that the three racial-ethnic subcultures represented in our sample operate under distinctive sets of rules in regard to participation of the child in Head Start, hence race-ethnicity will be a useful, albeit gross, indicator of relevant family rules. We expect, therefore, that race-ethnicity will affect the systemic relationships between parental, familial, and child benefit variables.

Focus on the child's sense of social acceptance and competence is unusual. Most prior research on preschool effectiveness has emphasized "academic" dependent variables such as IQ. However, evidence indicates that although preschool experience gives the child pronounced initial IQ advantages over children who did not participate, that advantage essentially disappears by the third or fourth year of primary school. On the other and, clear, lasting advantages of preschool involvement have been shown, e.g., lower rates of needing special instruction, lower rates of being in trouble, higher rates of completing high school, and higher rates of post-school employment (Lazar & Darlington, 1982; Consortium for Longitudinal Studies, 1983; McKey et al., 1985). The particular curriculum followed by the preschool (e.g., strict academic 3 R's approach, Montessori methods) has little impact on benefits. Preschool experience is advantageous, but primarily in generating attitudes toward self that give the child an edge in the future.

Competence and acceptance are components of the broader concept of self-esteem. Much research shows that "self-esteem is related to performance behavior" (Franks & Marolla, 1976). Competence and acceptance show mixed relationships with subsequent cognitive skills, but Harter (1985) concludes that perceived competence affects performance, albeit in complex ways.

Some research on a child's self-appraisal emphasizes parental influences (e.g., Rosenberg, 1965; Bachman, 1970; Wylie, 1979). The studies tend to deal with global self-esteem rather than specific self-appraisal (Felson, 1986), and they seldom involve preschool aged children, most often emphasizing adolescents. Only a few of the studies used parent respondents as well as children (Coopersmith, 1967; Gecas, 1974; Felson, 1981).

Felson shows that parental appraisals influence the child's self-appraisals in some areas, but not others (e.g., physical attractiveness). Phillips (1987) reports that, for children with high academic competence, parents' perceptions of that competence influence the child's academic self-evaluation. One other finding from Felson (1986: 304): "In general, the appraisals of parents and children are similar." While the children in Felson's study were older (grades four through seven), he suggests that parents might have greater influence on younger children. Hence, higher levels of parental appraisal of the child's competence and acceptance will induce higher levels of the child's own self-appraisal in terms of competence and acceptance.

Our data indicate that mothers of Head Start children tend to underestimate the competence and acceptance of their children, if the child's own self-rating is used as a criterion (Leik, Chalkley & Peterson, in press; Chalkley & Leik, 1991). Following hypothesis 1, mothers may unintentionally influence their children to feel less competent and acceptable than is warranted.

Low parental appraisals may in part be due to the fact that many single-parent, low-income women suffer from low self-esteem. Secondly, for many such families, there is virtually no joint involvement of parent and child in the world outside the home. Mothers who lack experience about competence and acceptance in larger social contexts are less likely to be aware of or to recognize those traits in their own children -- a more likely problem given a poverty background. Without "objective" (i.e., observationally-based) evidence, mothers will tend to generalize self feelings to how they view their children.

The implication is that factors that generate low self-esteem, hence a low sense of acceptance, are likely to generate a tendency to impute one's own lowered sense of acceptance onto the child. That imputation, in turn, signals to the child that he/she is not as competent or acceptable as other children, initiating or perpetuating a self-defeating prophesy.

Two circumstances could help. First, by observing a number of children, the parent could get a better sense of what to expect for children of that age. Further, if the parent could observe actual acceptance of her child by others, especially in contexts outside the home, her appraisals could become more accurate. A major benefit of parental participation in Head Start is that parents have opportunities to observe children in play with each other as well as interacting with adults (staff, other parents), resulting in more realistic appraisals of their own children than would occur in isolation. A second hypothesis is that parental appraisal of the child's competence and acceptance will be a positive function of parental self-esteem, and the extent of that relationship is stronger to the extent that "objective" observational evidence is lacking.

Our first hypothesis asserted that low parental appraisals affect a child's self-appraisal. To some extent, parental appraisal could be communicated directly by statements such as, "You're good enough to play with anybody," or "They don't want their kids to play with people like us." A more subtle yet powerful way to convey positive acceptance to the child would be a warm, cohesive family atmosphere. Of course, as Olson (1982, 1985) suggests, either too much or too little cohesion impairs family functioning.

For the families we studied, too little cohesion rather than too much is typically the case. A family lacking in cohesion could signal low acceptance to the child. Amato and Ochiltree (1986), for example, found that several measures related to family atmosphere were strongly correlated with primary school childrens' reported self-esteem. Assuming that family cohesion constitutes a mirror reflecting one's acceptability to others, a third hypothesis is that for relatively disengaged families, increasing family cohesion will induce higher levels of a child's self-appraisal regarding competence and acceptance.

There is little direct evidence relating parental self-esteem to family cohesion, but it seems plausible that one's self-view will influence one's social relationships. For example, partner relationships of low self-esteem people tend to be less cohesive than are those of people with higher self-esteem. For purposes of Head Start families, hypothesis four is that higher parental self-esteem will enable disengaged families to establish greater family cohesion.

Clearly, excessive cohesion could be problematic for the child's self-appraisal, but we have not found reduction of self-appraisal among children from overly cohesive families. Consequently, we will treat the relationship between family cohesion and child's self-appraisal as linear, recognizing that such may be an oversimplification. For present purposes, hypotheses three and four imply hypothesis five: for relatively disengaged families, higher parental self-esteem will enable higher levels of child's self-appraisal, re: competence and acceptance.

Thus far, then, it is argued that parental self-esteem will influence parental appraisal of the child directly as well as indirectly via the family's cohesiveness. Involvement in Head Start is also expected to affect parental appraisal of the child's acceptance and competence, which in turn is expected to affect the child's own sense of acceptance and competence.

There are two other concepts relevant to this theoretical development. First is the child's independence. Exploratory behavior is the epitome of self-directed learning, yet exploring requires both confidence in oneself and a degree of independence. Too much independence can make structured learning difficult; too little can inhibit participation in new settings. The relationship between independence and benefit from an outside-home learning experience is probably nonlinear, but for very young children in their first extended experiences outside the home, too much independence is an unlikely problem.

Independence and self-confidence (self-appraisal as competent and acceptable) are quite distinct concepts. A child may have a strong sense of self but be constrained by parental rules. Alternatively, some children are independent simply because their parents impose virtually no rules; and excessive independence can destroy self-confidence rather than contribute to it.

The relationship between independence and acceptance by others presumably depends upon the extent to which the display of independence remains within acceptable boundaries. Assuming that those boundaries are not exceeded, more independent individuals are more likely to be perceived positively by others. That positive perception by others will in turn induce a more positive self appraisal by the child. Consequently, hypothesis six -- to the extent that behavior remains within socially acceptable boundaries, greater independence by the child will induce higher levels of the child's self-appraisal regarding competence and acceptance. It is also likely that independent behavior by the child will be seen by a parent as an indication of competence and, if not excessive, of acceptability to others. Therefore hypothesis seven -- greater independence by the child will induce higher parental appraisal of the child's competence and acceptance. Of course, both too little and too much independence may induce lowered parental appraisals, but without strong indications of non-linearity, the relationship will be treated as linear.

What affects the child's independence? One possibility is that the parent, as authority figure in the family, does not feel in control. It is likely, then, that only minimal independence will be tolerated, because too much independence by the child would exacerbate feeling out of control. As developed by Rotter (1966), Locus of Control refers to feeling controlled by external forces vs. internal preferences. Remembering that high Locus of Control scores imply feelings of being controlled by external factors whereas low scores imply feelings of self-control leads us to hypothesis eight -- high parental locus of control will decrease the extent of the child's independent behavior.

In general, low-income people report higher Locus of Control scores. Single parents probably also feel more controlled by factors outside themselves. Recently divorced parents show increased Locus of Control scores for up to two years after divorce (Hetherington et al., 1983). Consequently, we anticipate that many Head Start children will have parents who, whether intentionally or not, restrict their children's independence.

A second source of a young child's independence is the reassurance of a cohesive family. This assertion is simply a translation of the Harlow and Harlow (1965, 1969) findings that infant monkeys explored more given cloth "mothers" vs. wire "mothers." Exploring requires independence. The tactile character of the Harlows' cloth monkey was the important factor, but it can be argued that for children, the family equivalent of a "cloth mother" is cohesiveness. In short, hypothesis nine -- greater family cohesion will increase the extent of independent behavior by the child.

The formulation is now nearly complete. What remains is to note that parental Locus of Control undoubtedly affects more than independence. Lack of control implies feeling vulnerable, which inhibits close relationships. Parents who are out of control will have difficulty generating cohesive families. Consequently, hypothesis ten -- higher parental Locus of Control will decrease family cohesion. Finally, as noted above, those who feel controlled by others typically have lower self—esteem. Hypothesis eleven -- higher parental Locus of Control will decrease the parent's self-esteem.

Assumption 6 (A6) suggested that cultural differences represented by racial-ethnic categories would condition the relationships just hypothesized. Rather than specific predictions for separate racial groups (our study involves white, Black and Native American families), we will open the door for exploration via hypothesis twelve -- any of the effects specified in hypotheses 1 through 11 may be conditional on race-ethnicity of the family.

These 12 propositions outline a dynamic model asserting that the crucial aspect of intervention is the joint involvement of parents (or other family members) and their children in a context outside the home, which lets each observe the other interacting with peers in positive, social, and task-oriented arenas. For most children in Head Start, the program offers their first chance to interact with, receive positive feedback from, and be supported by adults and children outside the family home. This process is especially important given low income, potentially isolated parents who often experience low self-esteem.

The effects in turn alter selected parent and family system variables, including parental self-esteem and family cohesion and adaptability. The extent to which parents and children agree that the children are competent will impact on parental willingness to share responsibilities and to adapt rules or roles to special circumstances, enabling a more functional level of family adaptability. Parents who see their children as more competent and acceptable will generate better feelings about themselves as parents and as competent adults in general, fostering more appropriate levels of family cohesion. These changes will subsequently feed back to maintain the child's functioning in the future.

There is not sufficient space to review relevant evidence here, but the following observations gleaned from sources previously cited are pertinent. The most common assumption underlying preschool programs is simply that there will be beneficial consequences for the child, although purely academic advantages disappear in a few years while other long-term advantages persist. Preschool curricula can vary widely without significant loss of long-term advantages of the preschool experience. Family demographics of Head Start classes are not related to persistence of cognitive gains past the Head Start year. Head Start apparently does impact on the child's self-esteem, although evidence is scant. Parents who participate in Head Start enjoy it, but most participation is relevant to program conduct rather than parent/child interaction and enrichment. There is some evidence that mothers' psychological well-being can be improved by participation in Head Start.

Our theory argues that, optimally, parents should be involved in activities that foster the parent's self-esteem and sense of personal control as well as mutual parent-child appreciation via enjoyable activities with other parent-child pairs. Therefore, we prefer the notion of parental enrichment, not just parental involvement. Perhaps the term should be broadened to "parent-child" enrichment. It is also clear in our data, that the way parent, family, and child factors interrelate varies in important ways across the three racial groups we have studied. A single model of family dynamics will be an inadequate basis for guiding policy or understanding results.

Our theoretical model, then, in contrast to those that guided earlier work, is best represented by the following diagram encompassing three sub-models: a family functioning model, a parental enrichment model, and a race-ethnicity model. As we complete analyses of the data we now have on 190 families, we will be able to offer preliminary assessment of the utility of this much broader model.

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Bringing Parents and Children Together: The Effects of Differences in Perception and of Racial/Cultural Variation *M.A. Chalkley, R.K. Leik, G.J. Duane, J.Rarick, Katherine Carlson*

"A Family System's Model for Parent Enrichment in Head Start" (Leik, Chalkley, & Duane) and this paper are both based on work focusing on the impact of Head Start on children and families. The former paper presents our theoretical model of how the effects of intervention programs shape and are shaped by family functioning and parental factors as well as by child and program factors. This piece focuses on systematic differences among families. Specifically, the focus is on how the larger cultural context as indexed by racial identification affects the interactions among parental, family, and child variables. The reasons for choosing to focus on this issue are both theoretical and practical.

At the level of theory, Bronfenbrenner (1979, 1986) has argued compellingly that it is not possible to understand the nature of development and change without understanding the social context in which it occurs. This context includes first, the family, and second, and equally important, the racial/cultural context of the family. Only by examining both of these components can we hope to understand how intervention programs can provide long-term benefits to the child.

Our practical concern is based on changes occurring in our society. According to recent statistics, more than 22% of children six and younger live in families with incomes below the official poverty line (Zill, 1991). These children are disproportionately likely to be children of color living in single-parent, female-headed households. These children are less likely than their more affluent counterparts to receive any early childhood education (Zill, 1991). Given these changes, it seems incumbent upon those who would promote the expansion of intervention programs to provide culturally appropriate models for how best to meet the needs of the different populations served by such programs. This work represents an initial attempt to address this issue.

To this end, it was assumed that, holding social class and major demographic variables constant, different racial groups function within different cultural contexts. Factors of shared history and shared cultural expectations and stresses would serve to shape family dynamics within each racial group (Harrison, Sarafica, & McAdoo, 1984; John, 1988; Staples, 1988; Willie, 1988). Since Head Start was designed to serve all racial groups and since whites, Blacks, and Native Americans comprise significant portions of the Head Start population (McKey, Condelli, Ganson, Barrett, McConkey, & Plantz, 1985), the Head Start Family Impact Project (HSFIP) focused attention on cultural variation among these groups in the impact of Head Start on families and children. Specifically, this report will provide initial descriptions of how the interaction of family dynamics in differing racial/cultural contexts affects the child's developing sense of competence and social acceptance. An earlier report regarding the HSFIP has presented results regarding the general impact of Head Start intervention on child and family variables and the effect of parental participation in enrichment activities (Leik, Chalkley, & Peterson, in press).

The HSFIP was conducted at Parents in Community Action (PICA), the Hennepin County, Minnesota, Head Start program. Data were collected for two cohorts -- a 1986-87 cohort and a 1989-90 cohort. Employing a quasi-experimental design, three samples for each cohort were selected for study. Head Start families were randomly assigned to one of two groups: REGULAR families, which had the usual opportunities for parental participation at PICA Head Start (N= 51 for 1986-87 cohort and N= 30 for 1989-90 cohort); ENRICHED families, whose parents and children were expected to participate in additional, specially designed activities (N= 30 for 1986-87 cohort and N = 29 for 1989-90 cohort). The CONTROL group in 1986-87 was selected from families who had applied for Head Start months earlier but who were not accommodated because of space limitations (N = 21). The CONTROL group in 1989-90 was recruited by canvassing neighborhoods for families similar to the Head Start families on demographic and income characteristics (N = 31). We focused exclusively on single-parent, female-headed households. Only fluent speakers of English were included. Participant children were 3:6 to 5:1 years of age at the beginning of data collection. Families could not have two children in the program simultaneously nor could the parents be employed by Head Start.

The PICA Head Start program is an all-day program that meets two or three days a week from the end of September until the second week in May. It offers a traditional nursery school program of mixed academic and social activities.

Seven enrichment activities were designed specifically to foster the parent-child relationship in the context of the Head Start program. The goals of the activities were that they provide a family or parent-child emphasis, enhance the parents' and children's understanding of each other's feelings and experience, provide better appreciation of each other outside the family context, and promote a sense of mastery for both parent and child.

Although they did not occur in this order, there were two support group sessions, three computer games, and two small group activities. The support groups were for parents only, and focused on the mothers' ideas about family and on preparing the families for the child's entry into school. The support groups were supervised by a member of the Head Start staff who had extensive experience in conducting such sessions.

The small group activities included three or four mother-child pairs in each session. The first activity included role playing in which the parent and child switched roles and worked through a particular problem they had selected. The role playing of each pair was observed by other parents and children in the group, so that all could benefit from the experience. The second sessions were similar but focused on sharing with others a favorite activity the mother and child had chosen.

The three computer sessions involved one mother and child per computer. The activities were l) a simple color sketching game in which the child, with the mother's help, created a drawing on the monitor, 2) a birthday party planning game, emphasizing that each decision one makes constrains future decisions, and 3) a treasure hunt, emphasizing systematic search procedures for obtaining resources. For all three computer games, the mother was taught how the game worked, and then she taught her child how to play the game. This usually resulted in a high degree of interaction between the mother and child, often with the child sitting on the mother's lap.

In fall and spring, mothers completed a set of self-report instruments assessing parental, family, and child variables. Children were interviewed individually using the Perceived Competence and Acceptance Measure. The measures of interest for this report are described below (See Leik et al., in press, for further details).

Family Adaptability and Cohesion Scales (FACES III (Olson, Portner, & Lavee, 1985) has two subscales: family cohesion and family adaptability. Cohesion is a measure of the closeness, warmth, and general supportiveness of the family. Adaptability refers to the degree of rule structure in the family. Olson et al.'s circumplex theory suggests that extreme scores in either direction on either dimension inhibit effective family functioning. The FILE (Family Inventory of Life Events) is a stress scale measuring number of stressful life events occurring in the recent past, created by McCubbin, Patterson and Wilson (1981). The Child's Perceived Competence and Acceptance (pictorial version for young children, Harter & Pike, 1980) is a pictorial self-report form. The child is asked to decide which of two alternative pictures with verbal descriptions is most like the self. Once the initial selection is made, the child indicates whether the chosen description is a lot like the self or only somewhat true of the self. This results in a 4-point rating system. Mother's evaluation of child's perceived competence and acceptance: the mother responded to written forms of the same items to which the child responded.

Preliminary analyses revealed no differences regarding sex of child. There was virtually no variability in absolute income, and mother's education and household size were unrelated to outcomes. Data were therefore collapsed across these categories. Combining the two cohorts for analysis has turned out to be extremely problematic. Therefore, the 1986-87 analyses will be presented, then the differences between the two cohorts will be examined, and, finally, results based on the replication data will be considered.

Data analysis (1986-87) in a 3 (treatment) x 3 (race) format was not possible due to the small sample sizes in certain cells. Data were examined separately for treatment effects (collapsed across sex of child and race) and for racial differences. Results regarding treatment effects have been reported elsewhere (see Leik et al., in press) and will only be summarized briefly. This section will focus primarily on some of our analyses regarding differences across racial groups (see Chalkley & Leik, 1991, for further details).

There were no significant differences among treatment groups on the variables measured in the fall, with one exception. For Head Start families, 50% were classified as extreme on adaptability; only 35% of Control families were so classified.

Repeated measures analysis of variance revealed that children's perceived competence/acceptance increased significantly over time ($F(1,91) = 6.39$, $p < .02$) for all children with no treatment or interaction effects. However, due to the small sample size and high variability for Control subjects, the reliability of this pattern as it applies to Control subjects must be interpreted conservatively. There were no significant differences among conditions on children's perceived competence/acceptance in the spring. The parents' reports of children's competence/acceptance increased significantly over time ($F(1,86) = 18.0$, $p < .001$), but there was also a significant interaction between treatment and time ($F(2,86) = 7.25$, $p < .001$), Significant increase occurred in both Head Start groups (mean increase, 5.7), but no increase occurred for Control parents (mean decrease, 1.0). The Enriched and Regular parents' reports of children's perceived competence/acceptance in spring were significantly higher than the Control parents ($t(49)$ 2.56, $p < .05$, $t(70) = 2.27$, $p < .05$, respectively) but Enriched and Regular groups did not differ significantly. The proportion of Extreme family types (i.e., classified as extreme on both cohesion and adaptability) declined significantly in the Enriched Head Start group ($X^2(1) = 5.4$, $p < .01$). If reduction in Extreme types was treated as a random variable, then the Enriched group's reduction (78%) was significantly greater than the reduction for either the Regular (40%) or the Control (25%) groups ($t(49) = 3.72$, $p < .001$; $t(48) = 4.30$, $p < .001$).

White, Black, and Native-American samples (regardless of treatment condition) were generally comparable initially on mother's age, education, and previous Head Start experience. Native American families tended to live in larger households than white or Black families. There were few initial differences across races on family, child, or parent variables. The spring assessments revealed no change in the relatively few mean differences by race. There were no significant changes over time in any mean scores for any racial group other than the previously mentioned treatment effects.

The purpose of this project was to examine how parental and family factors could shape child outcomes. Thus, our concern was not with mean differences as a consequence of race, but rather with the impact of social context on the relations among family and child factors. The child outcome chosen for focus was the change in the child's perceived competence/acceptance because significant changes in that variable had occurred. To examine change, a simple difference score was calculated (spring score minus fall score). To examine for effects due to race, the data were analyzed for effects on change in the child's perceived competence/acceptance using each racial group as a control for the others. Examination of our data revealed significant interactions by race in the covariate structure for mother, family strength, and family stability factors as they related to change in child's perceived competence/acceptance. Therefore, each race had to be analyzed separately.

Forty-four correlations using family and parent variables and the change score for the child were calculated for each racial group for a total of 132 correlations. Of these, 22% were significant at the $p < .10$ level; 7.6% were significant at the $p < .01$ level; 17% were greater than .30. Given the small sample sizes involved, the correlations were not random. The significant correlations formed coherent patterns for the different racial groups. For children with white mothers, positive change in child's perceived competence/acceptance was associated with having mothers with low-self esteem who felt externally controlled. Positive change was also negatively associated with mothers' reporting need for professional support. Maternal factors did not have comparable importance for Black or Native-American families.

Improvement in perceived competence/acceptance for children of Black mothers was associated with living in cohesive families (i.e., the family members had a strong sense of togetherness); families characterized by positive feeling tone (i.e., pride) and good coping skills. These factors, collectively considered family strengths, did not show comparable relevance for white and native American families. For Native-Americans, increases in children's perceived competence/acceptance were associated with families with high adaptability (i.e., they had few rules and little structure) which had low accord, relatively high levels of life stress, and few resources ($r = -.62$, $p < .01$). These family stability factors did not have comparable relevance for white or Black families. Further discussion of these data and initial path models developed to capture the racial/cultural variation they reflect can be found in Chalkley and Leik (1991).

Stress scores as measured by the Family Inventory of Life Events were significantly higher for the samples recruited in the fall of 1989 than they were for the samples recruited in the fall of 1986 ($t(188) = 3.02$, $p < .01$; 1986 $\bar{X} = 13.03$; 1989 $\bar{X} = 17.58$). In addition, the proportion of families which were classified as high stress (defined as a score of 17 or more) was significantly larger in the 1989 than in the 1986 sample ($X^2(1) = 3.94$, $p < .05$ (see Chalkley, Duane, Carlson, Rarick & Leik, 1991, for details regarding the nature of these stressors).

There were no other mean differences between cohorts across all treatment groups on initial scores on measured variables. There were, however, some non-random differences for variables for certain treatment conditions.

Preliminary examination of the correlation matrices of the measured variables broken down by cohort, race, and time of sampling (fall vs. spring) has revealed considerable variability between cohorts in the ways in which the variables of interest interact even when one controls for race. Although we have not as yet been able to pursue these differences, it is obvious that there is considerable variation between the two cohorts.

The higher stress levels for this 1989-90 sample were not evenly distributed. Stress levels for the Enriched group were significantly higher than for the Regular group (20.81 vs. 14.06, $t(55)$ 2.67, $p < .01$). There were also initial differences on the perceived competence and acceptance measure.

Change over the Head Start year -- Repeated measures analysis of variance revealed that children's competence/acceptance increased significantly over time ($F(1,78) = 3.93$, $p < .02$), but there was a significant interaction between condition and time of measurement ($F(2,78) = 3.93$, $p < .05$). The Regular Head Start children began with relatively high scores and maintained them. The Enriched and Control group children began with scores comparable to the 1986 samples and their scores increased.

Mother's perceptions of child's competence/acceptance increased over time ($F(1,84) - 127.5$, $p < .001$), but there was a marginal interaction effect $F(2,84) = 2.49$, $p < .09$). Initial scores for Head Start mothers (both samples) were lower than scores for Control mothers. Final scores were comparable for all groups.

Repeated measures analysis of variance of the difference between the child's evaluation and the mother's revealed a significant decrease in the difference (i.e., greater agreement) over time ($F(1,77) = 17.0$, $p < .001$), but it also revealed an interaction between condition and time ($F(2,77) = 6.43$, $p < .002$). The discrepancy declined only in the two Head Start samples.

The improvement in family functioning for the Enriched families reported for the 1986-87 sample was not true for the 1989-90 sample. Although some marginal improvement may have occurred in the Regular Head Start families and although the Enriched families did not decline significantly, there was little change in family functioning.

White, Black, and Native-American samples (regardless of treatment condition) were generally comparable initially on mother's age, education, and previous Head Start experience. As was true for the 1986-87 sample, Native American families tended to live in larger households than white or Black families. Although there are more differences on measured variables across race than there were in 1986-87, there are still relatively few differences. White mothers did have higher evaluations of child's competence/acceptance than did Black or Native American mothers.

The spring assessments revealed no increase in the relatively few mean differences by race. There were no significant changes over time in any mean scores for any racial group other than the previously mentioned treatment effects.

Given that sample sizes were relatively small for this cohort and that the racial groups are not evenly distributed across treatment conditions, it was not considered constructive to try to analyze the 1989-90 data for racial differences by collapsing across treatments. In addition, there was not a clear-cut change in the child's perceived competence/acceptance for all groups. Therefore, constructing correlations comparable to the one's provided above for the 1986-87 data was unlikely to be informative. Very preliminary analyses of relations among the various factors assessed indicate that the impact of Head Start was influenced by racial/cultural context. Detailed consideration of these possible patterns must await further analysis.

The Head Start Family Impact Project was designed to examine how parental and family factors shaped the impact of Head Start on child outcomes. It sought to develop racially sensitive models of family dynamics, which would provide a first step toward understanding how early intervention could foster long-term effects for participants. Although the results of this endeavor were limited by a narrowed time frame, which prohibited the possibility of examining feedback within the family system, and by restrictive sample sizes and variation across cohorts, which thus far have precluded examination of racial differences and intervention effects simultaneously, it has produced ideas and data that warrant further study. Clearly, part of the benefits of Head Start are being conditioned by the nature of the family and by the racial/cultural environment of the family.

The differences among races in the relations among family functioning and child outcomes highlight a new path necessary in the pursuit of understanding the meaning of racial identification. Simply examining mean differences among races on various measures will not allow us to understand the true implications of living in different subcultures. The presence of differential covariation in family functioning among the races found in these data must be replicated on a broader scale. However, it appears likely that such racial differences in covariation structure are valid, perhaps even common, and examination of them should provide new directions for research and understanding of racial differences.

Obviously, other accounts could be offered for the findings we have reported. However, it seems apparent that these accounts cannot focus exclusively on child outcomes. They will have to address the nature of the family system and its context. In addition, the question of how change in the child feeds back into and affects the family system needs to be addressed, as do questions regarding whether such changes continue to be fostered in the future. Could changes in the child's perceived competence/acceptance coupled with feedback and change within the family system promote the positive long-term school outcomes attributed to early intervention programs like Head Start (McKey et al., 1985; Royce, Darlington, Murray, 1983)? Only future research can answer this question.

Participation in Head Start does have beneficial effects for both children and their families, but at least two major themes need further exploration. First, the child's benefit from Head Start is conditioned by and interdependent with diverse parental and familial factors. Second, the interdependency among child, parent, and family factors differs across race. It would appear that no single theoretical model can accommodate all cultural variation. Hence, intervention strategies and policy should be developed to be appropriate for each racial group.

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Symposium 409 BUILDING THE INFRASTRUCTURE: CREATING A NEW MODEL FOR EARLY CHILDHOOD EDUCATION SERVICE DELIVERY

Presenters: **Nancy Conklin, Mary Frost**

Washington State's Early Childhood Education and Assistance Program (ECEAP), as administered by the Department of Community Development, is a "whole-child," comprehensive, family-focused preschool program designed to help low-income children succeed in the public school system. Because many factors affect a child's ability to learn and develop normally, ECEAP is comprised of four interactive components: developmentally appropriate cognitive and social education for at-risk 4-year-old children, with an emphasis on language development and readiness for formal schooling; parental involvement in the classroom, in parenting skills training and support groups, and in decision making for local programs; health services, including medical, dental, mental health, nutritional education, screenings, services, and referrals; and social services, including assessment, training, and referrals designed to help families secure needed services and to enable them to successfully advocate for their children.

ECEAP children are 3 to 4 years of age, not yet in kindergarten, and from families whose income during the last 12 months has been at or below federal poverty guidelines. The program operates locally through school districts, units of local government, nonprofit organizations, child care providers, and community colleges. It has grown very rapidly. In 1986-87, 1,000 children were served by 12 contractors. By 1990-91, ECEAP's fifth year of service, 34 contractors worked with children and their families, filling approximately 5,000 enrollment spaces at 166 sites, representing every one of the 39 counties in the state.

ECEAP has established eight specific goals for its assistance to children and families. Five directly address the developmental needs of its client young children: 1) the establishment of patterns and expectations of success for the child, which will create a climate of confidence for present and future learning and overall development; 2) the enhancement of the child's cognitive processes and skills, including appropriate steps to correct current developmental problems; 3) the encouragement of self-confidence, spontaneity, curiosity, and self-discipline, which will assist in the development of the child's social and emotional well-being; 4) the enhancement of the child's health and physical abilities, including appropriate steps to correct physical problems; and 5) the enhancement of the child's access to an adequate diet, as well as the family's attitude toward sound nutritional practices.

Three additional goals address the needs and aspirations of their families: 1) the increased ability of the child and family to relate to each other and to others; 2) the enhancement of the sense of dignity and self-worth within the child and the family; 3) the empowerment of families to develop improved parenting skills, increased knowledge of and access to appropriate resources, greater advocacy for children's needs, and increased self-sufficiency.

The ECEAP Child and Family Tracking Study is monitoring accomplishment of these goals and the legislature's overall mandate for improvement of school readiness. Now entering its fourth year, the Tracking Study is following 1,400 ECEAP children and families through the children's fourth-grade year. A comparison is being made between these children and families and 500 ECEAP-eligible children and families who did not have access to preschool services.

Information to date (ECEAP Child and Family Tracking Study: Year 2 Technical Report, Child, Family and Community Program, Northwest Regional Educational Laboratory, Portland, Oregon, 1990) is partial, reporting effects of ECEAP-year

programming for 400 children and families and kindergarten-year follow-up of 250 children and families. While these results are not representative of all ECEAP programs, they do indicate significant positive impact on children and, to a lesser extent, on whole families. The ECEAP-year results are based on assessments of children by their parents and their teachers and by standardized, norm-referenced measures at the beginning and the end of the ECEAP year, in addition to family interviews conducted at the same two points in time. Kindergarten-year data derive from fall and spring child assessments by teachers, spring parent interviews and assessments of their children, and school records.

Child outcomes. Findings related to the ECEAP goals for children include: 1) teachers report that children increased in their levels of motivation and achievement orientation during ECEAP; 2) parents report that their children's insecurity and shyness decreased during ECEAP; 3) ECEAP children showed strong gains in cognitive skills on both of the measures used; 4) African-American, Hispanic, and Native American children's cognitive skills increased most during the ECEAP year; 5) teachers report that children became more capable of emotional expression during the ECEAP year; 6) ECEAP children showed strong gains in motor skills; 7) African-American children's motor skills increased most during the ECEAP year; 8) 90% of former ECEAP children are enjoying school, the parents of these kindergartners report.

Overall results suggest that ECEAP is succeeding with its developmental and readiness goals for all children and, further, that ECEAP is having the effect of enhancing equity among children's readiness. It is anticipated that ECEAP effects on families will be more difficult to identify and slower to emerge. Of particular interest are effects of the social services component of ECEAP programs and the outcomes of parent involvement and education. The Child and Family Tracking Study shows some evidence of possible effects on families of ECEAP children in their preschool and kindergarten years: 1) parents report that their access to money increased during their child's ECEAP year; 2) parents report that their access to basic resources increased during their child's ECEAP year; 3) two-thirds of former ECEAP parents report that they regularly attend events related to their kindergartner's schooling; and 4) half of former ECEAP parents report that they regularly attend school parent meetings.

ECEAP is looking toward continued expansion of the number of children served. It is the state's expressed hope, together with Head Start, to offer comprehensive preschool to all the state's low-income 4-year-olds by 1993. A vision for that expanded service delivery system has been developed and plans for its implementation are underway.

Continuing and enhancing the model of local collaboration and local design that has characterized the state approach from the outset, ECEAP has developed a model of local empowerment that has direct implications for service structure design, as well as local program development and delivery. Its principles include: Responsiveness to local needs and aspirations -- The service delivery system will be based on assessment of needs of children, families, and communities. Participation by parents and child advocates in the governance of local programs and regular needs and resource assessment will assure that this relationship between service delivery and local appropriateness is dynamic and proactive; Family empowerment -- Empowerment of families to meet their and their children's needs is a key goal of ECEAP. This is articulated in the service delivery system; Local community empowerment -- ECEAP programs serve children whose families collectively represent a community whose unique needs and aspirations shape program design and delivery choices; Local coordination of program development and administration -- Rather than basing ECEAP in a single administration as a large-scale, statewide program, the local empowerment model is applied to program administration, through delegation of key administrative responsibilities to local field management agencies. These agencies enable cost- and resource-efficient administration while assuring that all program development is soundly based in family and community needs; State agency as facilitator and enabler -- As administrator of a limited number of area agencies who are the parties responsible for a large number of locally developed, delivered, and administered programs, state-level involvement takes on the role of facilitation, technical assistance, and liaison among groups of providers.

In order to explore strategies for implementing these principles, ECEAP initiated the Area Agency Pilot Project in September 1989, working with a small group of volunteer program directors who agreed to reach out to try to equitably serve a self-designated area of the state, actively pursue local collaboration, and develop programs that reflect locally designed options appropriate to individual communities. ECEAP contracted with the Northwest Regional Educational Laboratory (NWREL) to facilitate and document meetings and conduct site visits for documentation of field activities of the participant ECEAP contractors (Exploring Process for Expanding Access and Assuring Excellence: A Report of the ECEAP Area Agency Pilot Project, Child, Family, and Community Program, Northwest Regional Educational Laboratory, Portland, Oregon, 1991).

By 1989 it became clear that ECEAP was experiencing and could expect to continue to experience rapid growth. ECEAP leadership sensed increased urgency to develop a planned approach to expansion. Philosophically committed to a local empowerment model, staff sought models for statewide design and implementation of locally driven family service programming. A variety of experiments with local collaboration for the definition and delivery of family services indicated improved access, more effective and efficient service, and increased overall local commitment to the needs of children and families. But no model emerged, either nationally or internationally, of implementation of the concept on a large scale, such as the growing statewide ECEAP program.

In view of this lack of research on implementation, ECEAP determined to proceed cautiously, but affirmatively, developing its own project for exploration of the model. ECEAP launched its own research into empowerment-based service development. Soliciting from among its most established programs, ECEAP secured commitment from a small group of contract directors to participate in a two-year experimental program -- the Area Agency Pilot Project.

For purposes of the pilot project, directors made three action commitments. First, they would increase their responsibility for service delivery coordination across an "area," often, but not necessarily, a county. An "area" might be a social, as well as political designation, in order to be responsive to local definition of the community to be served. Second, the selected contractors would serve a coordinating, "agency" function, bringing local stakeholders together, brokering for services, and interacting with ECEAP. Third, they would work directly with local providers and community members to identify and implement program approaches appropriate to needs and aspirations of the community's families.

Six ECEAP contractors (Aberdeen School District, Community Colleges of Spokane, Economic Opportunity Committee of Clark County, Puget Sound Educational Service District, Snohomish County Human Services Department, and Washington State Migrant Council) agreed to participate as pilot area agencies. Together they represent the ECEAP contractors statewide in terms of region, ethnicity of population served, institutional affiliation, and size. As pilots, each was awarded the ECEAP county child allocation for their area not held by other contractors, as well as opportunity to expand services throughout their area as its definition emerged. Since summer 1989, the six pilots have worked to implement the area agency concept in their own communities and to collectively develop a mission for area agencies in the ECEAP service delivery system.

The pilot directors have convened quarterly during this period to spend two days reporting their progress, problems, and solutions and developing a collective vision of what it is like to be an area agency. Staff of NWREL and DCD have facilitated and recorded these discussions, capturing the evolving concept and assisting in its iterative restatement and continuing development. In addition, NWREL staff have conducted site visits at each of the pilot area agencies and a number of their program sites. Area agency and program site staff and policy council members have been interviewed. A collection of materials relating to area agency functioning has been assembled.

The findings from the Area Agency Pilot Project thus represent six actual experiences in implementation of an evolving concept. The process has been highly interactive and formative. Out of the sharing and group review of individual experiences the functions of an area agency began to take form. From the emerging understanding of the functions directors discover new roles for their agencies. The reports of these experiments in implementation then become grist for the next round of discussions of experiences with the model.

Each of the pilot area agencies has succeeded in developing ECEAP services it its area. Some highlights of their accomplishments include the following: With their mandates for expansion, the pilots doubled the number of children they serve and now account for half of the entire state child count. Most of this expansion has taken place through subcontracting processes, drawing in new providers who are offered technical assistance, training, and, in some cases, specific program components by the area agency. This has been accomplished without increase in DCD staff.

A broader base of providers has been brought into the ECEAP system. Some new subcontractors are prior, unsuccessful ECEAP contract applicants who are able to offer quality start-up programs through the on-site assistance of their area agency. Other subcontractors include groups who have coalesced through the outreach efforts of the agencies; for example, a group of tribes who were willing to work with a local facilitating agency. Pilot area agencies provide on-site training and technical assistance to these new programs.

Pilots have developed strong community collaboration networks, working with a broad range of local educational and human service agencies as program sponsors and as participants providing specific program components to children and families. Area-wide assessment of resources has greatly expanded this capability to bring services together. Increased equity of access has been an important outcome, as pilots have pooled their area resources to enable outreach to remote communities with small numbers of children and to special needs populations.

The pilot directors have also worked to develop a statement of mission for area agencies within the ECEAP system. A tentative statement has emerged as follows: The mission of area agencies is to facilitate delivery of ECEAP services to children and families; to assure that ECEAP services are locally appropriate, responsive, and empowering; to broaden the community base of support and participation in ECEAP locally; to assist ECEAP programs in attaining and maintaining high program quality standards; and to maximize efficient use of resources for service to children and families.

The pilots have identified six components essential to area agency functioning: agency awareness, including establishing a clear sense of local area mission and role, a good fit between that mission and community needs and resources, and an ongoing strategy for renewal; planning and development of the area, including need and resource assessment, identifying and developing local program providers, assisting local program providers to identify and recruit human service collaborators, equitable outreach of services to the entire area, and local resource development; assisting local service delivery development, including selection of local providers, negotiation of roles within the evolution of service provision capability, enhancement of service quality, assistance with challenging program components, area networking and communication, and responsiveness to program needs arising; training, including training needs assessment and training development and delivery; and agency administration and assisting local program administration, including policy councils, relations with ECEAP and other state programs, contract and subcontract management, and review and monitoring of local programs.

Community-wide leadership and advocacy, including collaboration with family support providers, serving as a local representative for ECEAP and for quality, comprehensive services, developing networks and assuring information dissemination, and

working to link theory and practice through identification of barriers and bridges, mentoring local leaders, and advocating for family-empowering public policy.

Indications are that the six pilots have been highly successful in both improving and expanding ECEAP services and in evolving a concept for area agencies that may service ECEAP statewide. The advantages and disadvantages for children, families, and communities, programs and area agencies, and ECEAP can be assessed.

An assessment of the advantages and disadvantages of the area agency model for children, families, and communities reveals that there are clear advantages in quality and responsiveness of service delivery. A disadvantage is the difficulty of collaboration development, albeit these difficulties are far out-weighed by the positive effects on children, families, and communities. A further potential disadvantage is limitation on the number of local agencies that can serve in the role of lead area agency. If, however, the model is operating in an empowerment fashion, there should be no discrepancy between community service needs and service provided, nor exclusion of any interested local party from participation in shaping targeting and content of services.

The advantages and disadvantages of the model for ECEAP programs and programs that choose to develop as area agencies were assessed. Efficiency of service delivery is enhanced. Resources are shared and multiplied. Emergent programs are especially benefited since highly skilled assistance is locally available. On the disadvantage side, it must be recognized that programs developing as area agencies must learn a whole new set of skills and responsibilities. Further, access to this opportunity for such growth must necessarily be limited, consistent with the goal of a finite number of prime contractors.

An assessment of the advantages and disadvantages of the area agency model for ECEAP as the state administrating agency indicated that while the advantages clearly outweigh the disadvantages, caution must be exercised to assure that all area agencies are high-quality operations, since direct state supervision has been delegated to the empowered local service delivery providers. Role shift for staff is also required at this level.

These findings clearly indicate that the area agency concept shows great promise as a model for statewide delivery of ECEAP services. Acting on these findings, the ECEAP Advisory Committee has recommended that ECEAP pursue the model on a statewide scale in the 1991-93 biennium.

Based on these findings, ECEAP has launched a two-year program of refinement and dissemination of the model of community-driven, locally based service delivery. This work is being conducted jointly by ECEAP staff and the directors of its contracting agencies. While contractors are at varying stages of development as service providers and administrators, and in their empowerment, it is expected that all contractors will make significant progress toward the empowerment model over the next two years.

ECEAP is also reorganizing its administrative structure and process to reflect and capitalize on these developments in the field. These initiatives include developing an administrative component to be added to the basic program standards, which will outline the empowerment model for delivering service to children and families, shifting the focus of state staff's monitoring for program compliance to assisting contractors to monitor their own programs, and further field-testing and documenting of the community-based model of comprehensive service delivery.

Symposium 410 PREGNANCY, MATERNAL CHARACTERISTICS AND INFANTS

Chair: **Alan Kraut**; *Discussant:* **Suzanne Randolph**

Social Support of Primiparous Mothers and Home Stimulation for Their 4-Month-Old "Normal" Infants: A Prospective Study *John M. Pascoe, Joyce French*

The purpose of this study was to prospectively examine the association between prenatal maternal social support, depression, and satisfaction with a male support figure and postnatal home stimulation for 4-month-old infants. These three factors -- social support, depression, and satisfaction with male partner -- are selected components of Belsky's theory of the determinants of parenting. In this study, we attempted to identify possible determinants of the quality of parenting and defined quality of parenting as the social and physical environment provided by the mother (Belsky, 1984), using the HOME scale as the measure (Bradley & Caldwell, 1988).

Measuring medical risk during pregnancy has become commonplace and effective in preventing complications. Measuring parenting risk during pregnancy is not as well developed, though the complications can be as serious (Bowlby, 1988). "Early intervention" to promote attachment, development, and positive human relationships characteristically begins after the baby is born. Like physical health, it might be more effective if risk factors could be identified and appropriate well-targeted interventions initiated during pregnancy. While human relationships and development are too complex to be summed up in simple cause-effect terms (Thoman & Browder, 1987), prospective studies may shed light on possible targets for intervention during the prenatal period and help mothers and babies get off to a better start early on.

Characteristically, the social and physical environment of the infant's home, as measured by Bettye Caldwell's HOME scale has served as a reliable predictive measure of aspects of future development. Her Little Rock longitudinal project studied 77 children

followed over 11 years. The Infant HOME scores were significantly related to teachers' ratings of school adjustment and to the Science, Research Association (SRA) Achievement Test series (Bradley & Caldwell, 1988). In other studies, the behavioral variables most highly related to HOME scores are positive orientation, enthusiasm, alertness, and activity level (Bradley & Caldwell, 1988). Several cross-sectional studies suggest that higher levels of maternal social support may be associated with higher scores on the HOME, particularly the responsivity of the mother and organization of the environment (Crockenberg & McCluskey, 1986; Pascoe & Loda, 1981). Others have used the HOME as an outcome variable (Dunst, 1986, Stephens, 1988, Hannan & Luster, 1991), but we are not aware of other prospective studies that began during the prenatal period and looked for predictors of HOME scores at the fourth month of infancy.

Investigators have shown social support to be an important factor in the behavior and attitude of parents (Affleck & Tennen, 1986). Maternal self-confidence and responsiveness, which could be observed in competence with the infant have been related to social support (Abernathy, 1973; Powell, 1984). A relationship between the lack of social support and child maltreatment has been found by several researchers (Belsky, 1980; Parke, 1977; Pascoe, 1981). One study of adolescent mothers, using the same instrument we used in this study, predicted maternal well-being, but not commitment to child care. The results of these studies showing the relationship of social support and quality of parenting led to the development of Parent Support programs across the nation during the 1980's (Boger & Richter, 1986; Dunst, 1986).

Few studies have explored the effects of mild to moderate depressive symptoms on early mother-infant interaction (Hoffman & Drotar, 1991). In general, depressive symptomatology has been shown to be related to the quality of affective exchange, understimulation and/or intrusiveness with the newborn, and deficient contingent responsiveness (Field, 1984). The findings of a recent study (Hoffman, 1991) indicated that mild to moderate maternal depression was more likely to affect social interactions involving face-to-face exchanges than interactions that would be measured by the HOME.

Several studies have indicated that spousal support has a positive effect on parenting. This support is likely to influence the quality of the home environment in at least three ways: through emotional support for the mother, financial support for the family, and help with the direct care of the infant (Hannan & Luster, 1991).

METHOD: The sample for this study included women who: 1) were experiencing their first pregnancy; 2) made at least one third-trimester prenatal visit to a participating public or private prenatal clinic; 3) delivered vaginally; and 4) had an infant discharged from the normal newborn nursery.

The method of selecting families was designed to provide representation from diverse segments of the childbearing population in a Michigan community that has approximately 10,000 births per year. Five recruitment sites (three private obstetric offices and two publicly funded clinics) provided an adequate representation of the diverse social class, education, race, and life style variables. Healthy primigravidas who were in their third trimester were invited to participate while they waited in the reception rooms to receive care. If they agreed, consent forms were read, signed, and data collection began. The overall refusal rate at all sites was 22%.

A prospective, descriptive design was used to achieve the objective of this study. The unit of analysis was the individual, healthy primigravidous woman. The variables believed to have some relationship with each of the independent and dependent variables were also measured. These were mother's age, marital status, race, education, and socioeconomic status. The Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977) is a self-report, written questionnaire that measures depressive symptomatology. It requires the woman to indicate the frequency of 20 discrete feelings -- actions during the last seven-day period on a 4-point Likert scale. Social support was measured by the Maternal Social Support Index (MSSI), developed by Jack Pascoe and others in 1981. This self-report questionnaire has been used in a variety of studies to relate maternal social support to the care and stimulation of small children in the home. The perception of satisfaction with male partner was measured using the Dyadic Adjustment Scale (Spanier, 1976). This self-report questionnaire, which is based on the Locke-Wallace measure, tests dyadic consensus, satisfaction, cohesion, and affectional expression. All of these instruments have well-established reliability and validity and are frequently used in similar studies.

The Home Observation for Measurement of the Environment (HOME) was developed by Robert Bradley and Bettye Caldwell (1988). Previous research supports the reliability and validity of the HOME. The HOME includes 45 observational and interview items categorized into six subscales: emotional and verbal responsivity of the mother, avoidance of restriction and punishment, organization of the environment, provision of appropriate play materials, maternal involvement with the child, and opportunities for variety in daily stimulation. We used both the total and the subscale scores for analysis and report.

RESULTS: Using the Hollingshead Four Factor Index, about one-half of the mothers in this sample were in the Skilled category or above, 82% of the sample were white, 55% were married and living with their spouse, 40% were single, never married. Three-quarters of the sample had at least a high school education and mean age was 22 years. Using single variable linear regression, almost all of the independent variables we analyzed were significantly associated with HOME scores. The strongest univariate predictors were marital status, SES, and prenatal satisfaction with a male support figure. The psychosocial factors analyzed in this

study had modest correlations in the directions anticipated. Mothers with more support and more satisfaction with male support reported less depressive symptoms. Mothers with more support reported higher levels of satisfaction with male support figures.

Due to the strong univariate association between marital status and home stimulation we examined characteristics of mothers in the three marital status categories: 1) single, never married; 2) separated/widowed/divorced; and 3) married, living with spouse. We found that the married mothers in this study reported more social support and less depressive symptoms than other mothers in the sample. Their mean SES score was also higher than the other two subgroups of mothers, and they were older than the single, never-married subgroup. It is not surprising that the mean score on the HOME approached 40 for the married subgroup and was under 35, with relatively greater dispersion, for the single, never-married subgroup. This difference in means was statistically significant.

We proceeded to perform stepwise multiple regression, for the total HOME score, as well as its subscales, using the demographic and psychosocial variables included in the single variable regression, with the exception of marital status and satisfaction with male support figure. As explained above, marital status was a "marker" for the psychosocial factors that influence home stimulation. Therefore, including it in the multivariate analysis seemed redundant. Including satisfaction with a male support figure in every analysis would decrease sample size for analysis because 10 mothers did not have male support figures.

As expected from the univariate analysis, SES was the best single predictor of home stimulation. However, maternal social support and race were also significantly associated with the total score. Maternal social support was the only variable included in the regression models for Avoidance of Restriction and Punishment and Organization of the Environment. SES, maternal age, race, and depressive symptoms were not included at $p \leq 0.15$. Though statistically significant, note that social support was a weak predictor, explaining only 6% of the variance in scores for both subscales. Maternal social support had a stronger association with the subscale Opportunities for Variety in Daily Stimulation, explaining 19% of the variance. Socioeconomic status also explained a significant amount of the variance (8%). Prenatal maternal social support was the best single predictor of the HOME subscale Provision of Appropriate Play Materials, explaining 13% of the variance, and socioeconomic status was also included in the model (4%). Maternal age had a weak, though statistically significant association with Mother's Emotional and Verbal Responsiveness, explaining 6% of the variance. Maternal social support explained 3%. Maternal race had a moderately strong association with the subscale Maternal Involvement with Child, explaining 24% of the variance. Maternal age explained 4%. This is the only subscale regression that did not include maternal social support at $p \leq 0.15$.

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Discussion *Suzanne Randolph*

My own work has been with infants born into African-American families. I speak from what I know about the research literature, with respect to newborns and their outcomes, and I have also used the Home Observation for Measurement of the Environment. I would like to compliment you on taking a longitudinal approach, because that is difficult to do, and also rarely done in the research literature. There are some very nice aspects of this study that are worth capturing. However, there are also some limitations, or perhaps some food for thought, and maybe some clarifications that are needed as well.

One excellent thing about the study, in addition to being longitudinal, is that it takes what is sometimes referred to as a transactional approach. That is to say that, we are not just looking at the contribution that the mother brings to the care giving environment, but are also looking at the contribution of the infant, and the contributions of the environment, or the home environment itself -- family support or support of a male figure. What is qualitatively different about having a male present for some mothers, and what is the potential for influencing developmental outcomes?

I would also like to note that in doing longitudinal studies, as you all probably observed here, the attrition is high. That points to the selectivity factor. Regarding selectivity, while you talk mostly about demographic factors, such as being younger, less educated, single, never married, and minority status, you do not say anything about the data you collected at birth, for that sample. Were they the more depressed, less satisfied with the male figure, less socially supported? These types of things will tell us something qualitatively about how these interventions you suggest might work, and how they might operate to help maintain contact. In order for you to be effective, you have to have mothers at your disposal, so to speak. I think that might add to our understanding about the population.

You might clarify your statement that in your sample 55% were married and 40% were single, which leaves maybe only 5% who are separated or divorced. So again, we do not know much about marital status. In a sense we have a population that is not really reflective of what is going on in America now, where there are a lot of families at risk because of marital dissolution. It might be worth studying what goes on for women who might find themselves without male support, but where there may be some extended family or some other support system that helps pick up the slack. They still looked better with respect to the HOME observation than did the single, never-married group. There must be something else qualitatively different about them as well.

I think the concept of studying parenting risk prenatally, as we have done with the parallel study of health risk, is a good one. The one precaution I might add, with respect to parenting risk, is that things change over time. Prenatally, one's expectations for being a parent may be quite different once the child is in a mother's hands. Maybe her confidence about how good a parent she is going to be as a first-time mother might change as well. So it might be well to try to follow that over time, and particularly the changes that come postpartum, or immediately following the birth of the child. Perhaps a four-month period, where there has been some time for them to make the adjustment, would be good. But it may be that the riskier parent may be the one who fails to engage or to initiate bonding. Again, I think your longitudinal design helps us with that. What makes that even more important for me, as a family researcher, is that there is the U-shaped curve in the family life cycle, which shows that satisfaction with your male partner or your spouse may be high pre-maritally, or when you first get married, but that it is the birth of the first child where you see the satisfaction go down. It might be nice to follow them and see if, over time, that satisfaction stays high for those who are married or if it drops off because of the demands of a child.

Another interesting aspect of the study was that SES and some of the variables we think might go into socioeconomic status were somewhat weak as predictors, with respect to HOME subscales. But race had a 24% contribution, particularly with maternal involvement. When we use variables like this, I think that our challenge is to ask, Is it race or is it culture? I think what we all should take away from here is that hard as they are to do, longitudinal models do offer good approaches and certainly extend what we know in this area with respect to very young infants.

JOHN PASCOE: Most of the single, never-married mothers had a male partner with whom they were satisfied. So, if you assume that many of these single, never-married women had live-in partners, many of whom were the father of the child, this actually does reflect some of the things that are currently going on in America. It may not have come out clearly in the presentation, but most of the single, never-married mothers did have male support, and many of them were satisfied with it. I could not agree more that parenting risk needs to be monitored over time. I am sure Joyce French would be the first to acknowledge that things do change, and risk will change. It is a dynamic, fluid process. And it does need to be monitored over time. Again, we are just trying to shift the emphasis to an earlier age, at the same time realizing that the issue about labeling will come up. We are sensitive to this issue, but we are also enthusiastic about trying to help mothers as early as possible in the process of becoming a parent. That is a balancing act that we all do in our daily lives, as well as in our research. I agree that we can go back to this data set and get a better sense of what race means.

SUZANNE RANDOLPH: Do you have enough in your sample to look at race by SES?

JOHN PASCOE: Probably not. I think 82% of the families were white and most of the remainder were Black. I do not think we have many Hispanic families. We wonder about stability of social support over time. We could have looked at women who stayed above the median, both prenatally and postnatally, but we started having difficulty with sample size. There were enough shifts that we really did not think we should be doing that in this sample.

Symposium 411 A SUMMARY OF CONVERSATIONS WITH URIE BRONFENBRENNER: HEAD START FOR THE 1990'S?

What knowledge do we have that can help us address the more pressing problems facing children and families today? What have we learned from research? How do we turn knowledge into "know-how"? These are our major themes. In looking at research we must not confuse well-designed research with good scientific research. Too often we substitute the former for the latter and mistake statistics for facts. When what happens to children in families is at stake, knowledge cannot be a casual matter.

Let us start with some of the major changes that have taken place in American society. What is the present state of children and families? We now have at our disposal a rich set of comparative data, as the result of cooperative work by scientific organizations around the world -- comparative data from World Health Organization, the United Nations, the European community -- where common frames of reference are now being used. What I will present is a summary of that data.

Insofar as well-being is concerned, families and children in the United States fare among the worst in the English-speaking countries. Moreover, there is as big a difference between us and the other English-speaking countries as between the English-speaking countries and the major comparison group, the countries of Western Europe. We are the worst by a host of criteria including rates of divorce; low birth weight babies; unwed motherhood (where we really stand out); teenage pregnancy and teenage birth; and poverty. The Japanese are also very worried, although they would never say it. They are afraid of our diseases, but they do not have problems anywhere near the others. The Japanese do not look at means; they look at slopes. They had a delinquency rise a few years ago and it was an emergency! They immediately mobilized a campaign and the following year, the slope was going down again.

Our rise to "prominence" in rates of divorce took its leap just about the time Head Start was born. Although the rate of divorce has been plateauing in our country, something else has not: U.S. children under six in one-parent homes. (The data I am presenting are a little behind the times; it has just reached 25%.) Although divorce explains some of the rise, the big explosion is in unmarried mothers with children under six. The comparative data on teenage pregnancy and rates of teenage birth in selected developed countries shows that, again, the English-speaking countries are first, with the United States out in front.

The U.S. also excels in comparative rates of poverty. If we start in 1959 with the poverty index, we see the elderly and children moving out of poverty at a tremendous rate, up through 1974, when we had the fewest number of children in poverty since 1959. Then we went back to where we are now with the figures after 1979. According to the latest figures, we now have one quarter of all children eighteen and under in poverty, while the elderly show an declining pattern. I mention this to demonstrate that once we have decided we want to change things, we do. We know exactly how to do it, we work fast, we work quick, like we did with Head Start. Of course there are poor elderly, but in 1959 the elderly and our kids were at the same point.

What about child care? Most of you are familiar with the data. You know we are very different in our way from other modern, industrialized countries, not only with respect to preschool programs, but with respect to every type of support system we can think of, and some we probably have not thought of. The principal difference between us and the countries of Western and Northern Europe is that most of their systems are insurance-based and jointfully and cooperatively thought through and coordinated between government and the private sector. For example, the French serve 98% of all children from three to six with a joint, government-private system.

What are the consequences of these patterns of family life and child care, "U.S. style"? Let us take the family first. The different types of changes we have examined, different as they are, have paradoxically similar consequences. As I summarized in testimony to the U.S. Senate, these consequences do not become readily apparent until children are in adolescence, when you see what is now called "the adolescent syndrome." The principal elements in this so-called syndrome include lack of attentiveness in the classroom, impaired scholastic achievement, problem behavior in school, frequent tardiness and absence, dropping out, heavy involvement in autonomous peer groups, behaviors such as smoking and drinking, early and frequent sexual experiences, cynical attitudes toward learning and toward work, lack of self-worth, teenage pregnancy, alcoholism, drug use and -- in the more extreme cases -- suicide, vandalism, violence and criminal acts. Children in single-parent families are more vulnerable than others in this regard, as are male children.

Why, for example, is step-parenthood one of the most vulnerable family forms? The principal destroyer of course, is poverty, "American style." I will give you just one example. Visitors from abroad who see homelessness tolerated here cannot understand how that came to happen. Not that others do not have homelessness, but the scope of it is different -- it is not homeless families with young children. But the problem is not just poverty. The next condition that is especially destructive is unemployment, "American style." The story is best told by Glen Elder in his Children of the Depression and subsequent follow-up studies. In a more recent study in the Silicon Valley, during a recession, there was a rise in family violence, both spousal and in parents towards children. Another study by Dale Farran looked at illness. They found very little effect on the parents, but substantial effects on children's susceptibility to disease. They asked why and found two factors. One factor was that families cutting down on their health care, but the big one was stress. The children were more susceptible.

But there is another major culprit. You do not have to be poor; you do not have to be unemployed, although they exacerbate the problem. You will understand why when I tell you what this factor is -- the increasing hecticness and instability in American lives. In the United States, families are now on the run. Disruption and change, change in settings, change in schedules, turnover, better

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jobs, and so on. Hecticness is especially marked among the poor, but it has also increased among the "haves." Why should it be so disruptive? It violates our biological requirements.

What does all this have to do with the future of Head Start? We have to shift our attention to what has been happening to children in the past 20 years to what has been happening to research on children. The predominant paradigms, usually implicit in the research design, have been either "person" models or "social address" models, with process viewed as a universal, that is, the same for everybody everywhere. These were the models upon which most Head Start research was based. But an alternative model -- what I call the "person-process-context" model (where process is progressively more complex interactions on a regular basis over extended periods of time with persons and objects in the environment) can be especially powerful in explaining development. As an example, if we look at data just being collected on the effects of parental monitoring on sexual activity in three types of families (single-parent families, two-parent families and step-families), we find the biggest effects are on step-families. Moreover, the biggest effects are from the early introduction of the process. Similarly, if we consider data on the effects of the number of prenatal visits on increases in birth weight, we find the effects on Blacks bigger than the effects on whites -- mind you, this is without regard to the quality of the visits -- and the biggest effects are in the early periods.

With regard to Head Start, we know that it works but we do not know what processes make it work. If we take cognizance of the person-process-context model, we probably are underestimating what Head Start can do. Important processes are occurring in the Head Start center, in the child's home and in the relationship between them. Our research has been based on class-theoretical models; we compare Head Start children with no Head Start children and look at differences. But in order to really understand processes, we have to know what kind of children these are, what their individual characteristics are, the different effects for male and female children and for those who come from different backgrounds. The processes work differently in different contexts.

Most of the variation in the course of development is accounted for by what I call "proximal processes and interaction between the child and people, objects, and symbols in the immediate environment." This process is the presentation of environments to which the child is responsive, and people or things which are responsive to what the child does. It is reciprocal sensitivity. It's toys that can be turned into something, like blocks. If a child builds a tower and it gets knocked down, you have got one upset child! You are going to have to hug him. That child has as much libido -- if I can use such an old-fashioned term -- invested in that tower as in Mommy, because it is something the child created. Parents know these things. That is why they hang the child's pictures on the wall and talk about them. That is where development happens. It has to happen for extended periods of time, on a regular basis, on a predictable basis. There have to be times for this, and from the research we have so far -- I am now mixing substance with models to give you the sense of what is going on here, because I am summarizing -- the big destructive force that cuts across all of these family structures and social worlds that we are creating for children is the progressively more hectic nature of everyday family life. We need stability and predictability.

I am reminded of the importance of this in development when I read a story to my grandchild. She will want the same story again and again, and I have to sit on the same side of her. She is using the story constructively, but hecticness introduces interruptions. And after you interrupt the story several times to take so-called important telephone calls, when you finally go back to the story, the book is thrown on the floor and she's gone. Hecticness is much worse in poverty. How can you escape it? If you are the only one -- a single parent -- you have to do four hundred and one things at once. The hecticness is undermining the process, especially among low socioeconomic families.

We did a longitudinal study in Syracuse in which we first saw the children when were three years old. The outcome measure was their adaptation to school upon entry years later. One of the things we looked at was work, including the number of hours that the mother worked per week. Now, you have two possibilities for analyzing the data. You can take the number of hours as a predictor or you can divide it into: not working; no more than six hours at work; part-time, which is no more than 35; and full-time, which is 36 hours and up. The obvious approach is to use the total number of hours worked. You should get better prediction with the more accurate measure, correct? But here is the ecological paradox. What is the reality? The reality is you are working part time; that's what you say, and that's what your employer says. You are working full- time -- there are benefits connected to them not to the number of hours you are working. Those are the ecological contexts in which you live, not the number of hours that you work. What is important about the number of hours is how well you can coordinate them with your family life. The principle is: Your concepts have to match the ecology in which human beings live.

Then my graduate student asks the question, "How many times did the mother change her employment status?" (i.e. working/not working, working part time/working full-time). Yes, she found that children did worse when their mothers were working full-time, but that is a semi-ecological model. It was working full-time, but only if you changed into full-time. If the mother maintained the same pattern, it was not bad. For example, shifting from not working to working is not so great. You establish a pattern and by the time you establish another pattern the child is not "with it", because you are not yet "with it" and the whole family is not "with it". It is not just mother; it is also dad, and grandma, and all the routines of daily life. A hectic pattern can undo the improved situation. Changes can change the whole system -- when you have a meal time, when you go to bed, all! We are dealing with systems. The child is a system; the environment is a system, and the relation between them is one whale of a dynamic system. Transitions are growth possibilities because they introduce the possibility for a new trajectory. Unfortunately, that new trajectory may be downhill, as well as uphill! That is a process-person-context model. I have a wonderful neurologist friend, in England, who says to me, "Urie, don't

forget: the human species is genetically wired for culture!" We are the only species that can create the environment that then creates us. That is the extraordinary thing about this experiment of nature. That is why parents are so powerful. I sometimes say (and I catch hell for it) that a poor parent is a lot better than a good professional, because the parent is willing to do what the professional cannot do. A parent regards this creature as more important than any other one. That is what gives you the power to hang in there and to be so exquisitely responsive and attentive to what is going on.

Unfortunately, there are not many studies that look at changing patterns, Cecil-Mary Drillien's work done in Scotland in the 1950's is an example of one such study, done with few statistics and few resources. We only have her outcome measures, the problem behavior measures. What I have here is a reanalysis of her data, which illustrates a general principle -- the magnification of early differences. Another principle I may have mentioned that is a primary obstacle to genuine scientific progress in our field has been an over reliance on type one errors in tests of significance and using them as tests of type two error -- saying something is not so when it is. In the analysis of the problem behavior, at first there were not significant differences. However, if you look at the pattern, it is exactly the same pattern that appears four years later when the differences are enormous -- little drops of water, little grains of sand. If you are going to study development, you have got to look at patterns, and not just focus on the lack of significance in the interaction, especially when interaction is any departure from main effects. These are not just any departures from main effects, these are patterned departures from main effects. We have no statistics to test for this. We could develop a statistic that tested the likelihood of repeating a specific pattern. You can clearly see the pattern in these data: the low birth weight babies are getting worse and worse, but the relative positions are the same. This is the magnification of effects. We must look at these things and not just focus on significant differences. When you look only at significant differences, you cannot see a pattern. Turning back to the data, you can ask the same question but look at those children who had the poor care or those children who had the good care. These children are on the road to adolescence, eventually, when these kinds of behaviors turn into real dynamite. There is continuity. There is a very important principle here: the effect of the environment is not to change the relative position of things, but to change the magnitude of the observed phenomena, corresponding to the relative position. So, biological offspring, in terms of rank order, resemble the biological abilities of their parents, but the mean level of their performance is much better. The more able are still more able. Just as you saw in Drillien's data, the normal weight kids gained more, and they continued to gain more.

Look what happens when you look at a variable for which there is evidence of the how the environment affects it -- quality of care. The environment of the work place is not genetically transmitted. Here the data are analyzed separately for children receiving poor care and good care. The children who are getting poor care are escalating in their problem behavior, whereas for the children receiving good care there is less increase in problem behaviors. These mothers have performed a small miracle in the lives of their children. In this sample 30% percent of these children are receiving good care. In lower social classes, the mothers give considerably more care to the low birth weight children. It is not as much as the higher social class mothers, but when they do it, they give it where it is needed. It is more obvious that it is needed because these kids are really disturbed. In the upper class, however, the normal weight children get the best care and the very low birth weight children get the worst care.

Another point about this ecological model I am presenting is that you should not just look at means. You have to look at what is happening in different parts of distribution. I want to give you a dramatic example. There are a number of studies, typically cited, which show that the effects of low birth weight are consequential only in lower class families. In middle class families, the kids turn out alright. I took Drillien's data and calculated what is happening to children with I.Q.'s above 120, as a function of birth weight. In the highest socioeconomic group, fewer children have I.Q.'s of 120 if they were low birth weight. This does not show up in the averages. Everything depends on what is happening below average. In the high socioeconomic group, the low I.Q.'s are brought up above 80. They are brought up because they have capacities. They are in a good environment, and you do not have to do it all yourself, because you can get your husband to do it, and there are people around.

I want to take a few minutes to tell you about what I think all this means for Head Start. First of all, we must focus our research on these processes. We have got to find out what processes go into Head Start. What are the processes that go into the families, and how do these two processes affect each other? And what is parent involvement? We ought to find out how it is different for boys and for girls and for those who live in different kinds of conditions. The kind of home you are living in and who else is there is going to make a difference. We now know that having a grandmother in the home who is telling the mother how to mother her child is a vulnerable situation, especially in difficult circumstances.

You heard the figure: about 42% of all eligible Head Start children are being served. Where are the others, the majority of children who need Head Start? They are somewhere and it is an obligation of Head Start's research arm to find out where they are. And it is an obligation of Head Start to ask the question, "Who is taking care of those children? How can we help those mothers?" This must be systemic: We have to have a coordinated system dealing with families, of which Head Start has a critical element, because it has the skills for making a system even if it is under-funded. Politically and economically, it is important to mix funding and get the private sector involved in these processes. They are intelligent people and they have a stake in it, which they recognize, and they have the political clout.

HEAD START SHOWCASE AND POSTERS

CURRICULUM DEVELOPMENT/EVALUATION

Guiding Development: A Preschool Curriculum Framework and Curriculum Training Guide

Diane Novak

The goal of this project was to develop for national dissemination a Head Start curriculum that contained philosophical, developmental, experiential, thematic, supervisory, and observational components. The purpose was to develop: 1) children with self-confidence and a firm developmental skill base; 2) teachers with a solid knowledge of child development and strong classroom observation/facilitation skills; and 3) parents with a good understanding of preschool education and supportive parenting skills. There were five parts to this two-year project. The first part was the reviewing and revision of the existing curriculum. The second part was the training of staff to implement the curriculum. The third part was the implementation of the curriculum in 15 classrooms. The fourth part was the writing of the training manual for the curriculum. Finally, the fifth part was a project evaluation by a third-party evaluator.

The project was staffed by two part-time people, a project director/author with 9 years experience as a Head Start director/education coordinator and a project assistant with five years teaching experience in Head Start. The revisions of the 178-page curriculum were made during the first year by the project director/author with input from teachers and an advisory committee. During the second year, the training was conducted monthly by the project director/author for six education coordinators and 15 teachers from seven Head Start programs. These programs included two city, three suburban, and two rural programs. One program was bilingual. The teachers ranged in experience from no experience to 10 years' teaching experience and in professional preparation from CDA credentials to MA degrees in Early Childhood Education. The curriculum was implemented in 15 classrooms for 445 children and their families. Technical assistance and resource materials were provided to participating programs by the project director/author and the project assistant. The 96-page Training Guide was written and revised by the project director/author as training sessions were conducted and evaluated. Finally, a project evaluation was written by a third-party evaluator from a local university.

PRODUCTS: The 178-page curriculum manual produced by this project is based on research in child development and developmentally appropriate practice. It has 10 components: 1) Goals; 2) Philosophy; 3) Development; 4) Environment/Experiences; 5) Observations; 6) Topics/Concepts; 7) Planning; 8) Home/School Cooperation; 9) Supervision; and 10) Resources. The curriculum is designed to be used as a framework by individual program staff, who, through systematic review and examination of recommended schedules and instruments, create their program curriculum. Based on documented observations, assessments, and profiles of teacher competency and needs/interests of the children in the class, the curriculum is also designed to be individualized in each classroom. To facilitate curriculum implementation and supervision, a management system of color-coded loose-leaf notebooks is utilized. Supervision focuses not only on monitoring curriculum implementation, but also teacher professional development and skill enhancement. Designed to be implemented as monthly workshops, the 96-page Curriculum Training Guide produced by this project sequentially introduces and implements each component of the curriculum through workshop activities, staff assignments, and classroom applications. Participants gradually assemble their Program Curriculum Notebooks and implement curriculum components as pieces are introduced. The workshops also address early childhood educational theory and practice that are the foundation of each component. The Training Guide has three parts: 1) Workshops for Staff; 2) Workshops for Parents; and 3) Workshop Activity Pages.

EVALUATION: The final evaluation report included in-depth interviews of program and project staff and pre-post-test data that compared classrooms using the curriculum with control classrooms that did not use it. There was a unanimity of positive responses to the Curriculum expressed by the Head Start staff who implemented it. The workshop evaluations showed that the level of satisfaction with the curriculum training workshops was high. The evaluator found that the project met or exceeded its stated goals in all areas. Pre-post-test data indicated that: 1) the children in whose classrooms the curriculum was implemented made significant improvements in critical learning and developmental skills; and 2) staff in these classrooms all showed growth in their teaching skills during the project period. Education coordinators were in agreement about the positive elements of the project in the following areas: classroom structure, improved supervisor/teacher communication, quality of resources, increased parent involvement in the classrooms, ability to follow and document performance standards, and overall accountability. Teachers were uniformly positive in the following areas: classroom organization, improved staff communication, increased parent involvement, professional development, and flexibility in application.

RESULTS: 1) Children in classrooms using the curriculum exhibited a 53.8% growth in developmental skills as compared to a 41.4% growth in developmental skills in the classrooms not using the curriculum. 2) Children in classrooms using the curriculum exhibited an average difference of 29% between spring and fall in mastered skills as compared to 20% in classrooms not using the curriculum. 3) Children in classrooms using the curriculum exhibited 80%-100% mastery of skills in seven out of seven developmental areas, while children not using the curriculum attained 80%-100% mastery of skills in an average of 2.25 out of seven developmental areas. 4) Teachers using the curriculum in four classrooms in which the supervision component was fully implemented for eight months showed a 37% growth in skills, a 22% increase in skill mastery, and 80%-100% mastery of skills in four out of four competency areas. 5)The workshop evaluations for the eight curriculum workshops presented by the project director for staff implementing the curriculum examined four areas: organization, presentation, activities, and benefits from attendance. Using a rating scale of 1-7, the average overall rating for the eight workshops was 6.3.

OUTCOMES: Several participating Head Start programs shared curriculum materials with local school system kindergarten teachers and early childhood special education teachers. Materials were also shared with local preschool and day care teachers. These curriculum materials are now being used in many public school programs and preschool programs in Connecticut. Since the completion of the project the project director has conducted a two-day curriculum workshop for more than 50 education coordinators at the 1990 New England Head Start Conference. Materials were also requested and sent to programs in Illinois, Wisconsin, Arizona, Virgin Islands, and California.

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The Role of the Arts in the Learning Process for Children: 3- to 8-Year-Olds *Judy Towry, James Heulsman, Debra Murphy*

In the education of children 6 to 8 years of age (K - 2nd grade) there are presently two conflicting models of educational practice; numerous variations exist as a result of their combinations. Commonly labeled as developmentally appropriate practice and Academic Kindergarten/First Grade, the philosophical discussion about these approaches centers on how young children most effectively learn, what it is that is important for them to learn, and the effect of either model on learning by the child later in life.

The role of the arts in these two models is radically different. Academic Kindergarten/First Grade programs generally view the arts as enrichment activities and schedule them as breaks, rewards, or as "rest and recreation." In a program that is dominated by this model the child experiences the world primarily through the teachers' organization of it. In contrast, early childhood educators, both in preschool programs and in the public schools, recognize the essential role the arts play in the education of young children. A program dominated by developmental concerns recognizes that children learn through their own activity with objects and materials and the subsequent application of the knowledge gained from that manipulation.

Current pressures to provide academic status for arts education have fueled efforts to compete for time and space in a tightly structured core curriculum in which the child is the recipient of lessons. Arts education, to "fit" more effectively into the educational structure, has attempted to meet the characteristics of mainstream education -- a common curriculum validated by experts and knowledge that is denotative and testable. We have ignored perhaps our greatest ally -- early childhood educators and a curriculum that moves naturally from experience in the world as a basis for education through knowledge and then on to skills.

The short-term impact of this project was evidenced through the development of this pilot project in United Head Start Program and the public schools. The project provides visible evidence of multi-agency programming that responds to the needs of young children in an art-centered environment. Additional impact was made through dissemination of project products and deliverables through the Regional Head Start Conference and the use of those materials in pre-service and inservice programs in Head Starts and public schools throughout the state. In the longer term, the development of a responsive parent/community support system knowledgeable of the role the arts have played in their child's education is envisioned. With a well-defined and effective program in place we will be ready to lend technical assistance to early childhood programs as they become available through public schools.

Specific needs which the project addresses: If we are to secure the role of the arts in the learning process for children, arts education practice must be shaped by what experts know of the ways in which children learn. In addition to being developmentally appropriate, arts education efforts need to be socially relevant for the community of students it intends to serve. Specifically, we recognize the "opportunity gap" for children of low-income parents to experience and actively participate in the symbol systems called the arts. As a consequence, their ability to notice, describe, and interact with symbolic form is put at risk, as is their power to be symbol-makers, to act upon the human ability to speak, dramatize, and graphically represent experience. This project addresses the need for a visible developmentally appropriate arts-based program to meet the needs of children 3 to 8 years old. Additionally, this project reaches kindergarten and first-year students in selected elementary schools that have not effectively assimilated into the traditional academic curriculum structure. This program will integrate the use of resources from the arts community as part of a multi-agency effort to meet the physical, social, emotional, and educational needs of the participants. In addition, this project will provide a framework for the development of pre-service/inservice instruction and materials.

The objectives of the program are: to explore the linkage of art resources and developmentally appropriate practices in the education of young children; to initiate an artist/teacher/parent inservice program in the pilot communities to provide necessary training for all adults; to support the development of effective evaluation strategies; to develop a responsive parent/community support system knowledgeable of the role the arts play on a child's education; and to develop and produce project materials for dissemination.

PROGRAM EVALUATION

The Effect of Head Start Leadership Training on Program Quality *Paula Jorde Bloom, Marilyn Sheerer*

This training program was unique both in its content and the way in which it was implemented. The conceptual model underpinning the program is grounded in adult learning theory. This perspective takes into account the distinctly different orientations, needs, and interests of adults who return for graduate study after working for several years. It encourages a facilitative role for the teaching faculty and an active role for students in structuring relevant learning experiences that are consistent with their career aspirations. The model also rests on the assumption that immediate application from new learning to real life situations reinforces what is learned. Links between theory, research, and practice are emphasized in a very useful and pragmatic way.

The program was structured so that the participants received training in an intact cluster group. This collegial model tends to create an atmosphere of mutual trust that encourages the sharing of ideas and collaborative learning. Also emphasized was a problem-centered, site-specific curriculum, as well as an applied research project and visitations by faculty to participants' work sites. The content of the leadership training covered all components of the director's role: organizational theory and leadership style; child development and program planning; legal and fiscal issues; and parent, community, and board relations. The training took place over 16 months.

Training outcomes of this project are documented in three areas: 1) participants' level of perceived competence; 2) the quality of classroom teaching practices; and 3) the quality of work life for staff. In addition, a case study summary is presented to document in greater detail the impact of the training.

Participants' level of perceived competence was measured by using the Training Needs Assessment Survey (Bloom, Sheerer, Richard, & Britz, 1991). The TNAS assesses the level of perceived competence in 28 knowledge and skill areas relating to early childhood education. These knowledge and skill areas can be grouped into five clusters. A comparison of pre-test and post-test data revealed a strong, statistically significant increase in participants' level of perceived competence in all five cluster areas.

A modified version of the Early Childhood Classroom Observation Scale (Bredekamp, 1986) was used to assess quality of teaching practices. The classrooms of the Head Start participants were observed at the beginning of the 16-month leadership training and again at the end of the training sequence. To provide comparison data, a control group of Head Start classrooms whose teachers did not receive training was also observed. A series of t-tests was conducted to discern if there were statistically significant differences in the mean change scores that might be attributable to training. On all four subscales and on the overall classroom quality scores, there were statistically significant differences. The target group of Head Start teachers consistently had higher scores on the post-test observations.

The quality of work life for staff was measured through the use of the Early Childhood Work Environment Survey (Jorde-Bloom, 1989). The ECWES measures 10 dimensions of organizational climate, the staff's level of current and desired decision-

making influence, their level of organizational commitment, and their perceptions of how their current work environment compares with their ideal. On nine of the ten dimensions of organizational climate, the staff employed at the Head Start programs expressed more positive attitudes about the quality of work life at their centers; on three of the dimensions, the differences in mean scores reached statistical significance. Significant differences were also evident in staff's overall level of commitment to their centers, their perceived level of decision-making influence, and the degree to which their current work environment resembled their ideal.

This study provides compelling evidence that training can have a direct effect on participants' perceived level of competence, the quality of their teaching practices in the classroom, and the quality of work life at their centers. As a cost-effective, easily implemented inservice model, it has broad implications for improving the professional expertise of child care directors and teachers while at the same time promoting substantive change and improvement in their centers.

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A Comparison of Long-Range Effects of Participation in Project Head Start and Impact of Three Differing Delivery Models *Yvonne B. Reedy*

In 1986, a project was initiated to study three different modes of Head Start service delivery in rural Pennsylvania. Murphy, Peters, and Bollin (1988) compared the effects of a five-day-a-week classroom; a home-based program; and a locally designed option, a combination classroom and home-based model. Results of that study indicated few differences in measures of achievement or social skills. However, differences were found in outcome measures of parent involvement.

The current study was a follow-up to that project, designed to examine the effects of differing Head Start Delivery Models, three years after the initial study. Families were located who participated in the original study. An additional control group was added, to provide a further comparison with a group of children who were not able to receive Head Start services and to control for possible confounding variables. The control group was randomly selected from eligible children whose applications were submitted to Head Start in 1985 but who never received Head Start services.

Child participants were compared on measures of achievement, behavior, independent living skills, and receptive language. Parent involvement was also measured. Standardized, norm-referenced tests were used for all but the parent involvement measure. That variable was measured using a self-developed parent questionnaire, modeled in the one used in the initial study. This questionnaire was field-tested using 15 former Head Start families. Modifications were based on their suggestions.

The subject population consisted of 18 children from each group involved in the initial study, plus 18 in the control group, totaling 72 across groups. Their ages ranged from seven to 9 years; most of them were in either the second or third grade. At the time the children were eligible to enter Head Start, their families met Federal income guidelines for entrance into Head Start Programs. Current economic status did not differ significantly across the four groups. All of the children were located in rural Pennsylvania, and were selected from demographically matched geographical areas, across nine different school districts. Having first written to the families, personal contact was made, appointments scheduled, and informed consent procedures followed.

Assessment data were collected by clinicians trained in the use of the instruments. The study was blind, in that clinicians were unaware of which groups they were assessing. Assessment data were analyzed with an assigned number and letter code as the only identifying information. The Woodcock-Johnson Psychoeducational Battery -- Part II, Tests of Achievement (Woodcock, 1977) was administered to measure achievement in reading, mathematics, written language, and general knowledge. The Peabody Picture Vocabulary Test -- Revised (Dunn & Dunn, 1981) was used to assess receptive language vocabulary. The Child Behavior Checklist -- Parent Rating Scale (Achenbach & Edelbrock, 1986) was used to measure parents' perceptions of their children's internalizing, externalizing, total maladaptive, and social behaviors. In addition, the teacher response form of this checklist was sent to the current teachers to compare behaviors across settings. The Vineland Adaptive Behavior Scale -- Survey Form (Sparrow, Balla, & Cichetti, 1984) was used to assess the child's independent living skills, with the parents as informants. The Head Start Follow-up Family Questionnaire was administered to assess parental perception of their own involvement with their child.

A one-way analysis of variance was used to compare the means for the four groups for each of the following sets of data: cluster scores for reading, math, written language, and general knowledge; scale scores for externalizing, internalizing, total maladaptive, and social behaviors; domain scores and total scores of the independent living skills measure; and scores on the measure of receptive language. Where significant differences were found, linear contrasts were computed to investigate further implications. Responses on the parent questionnaire were computed using a chi-square frequency count.

The comparisons of non-Head Start children to Head Start children served to confirm the work of previous investigators and to further validate the efficacy of Head Start. Head Start children were compared with similar non-Head Start children after they had been in the public schools for two to four years. A chi-square analysis of frequency count indicated a significant relationship with handicapped and high-risk status in favor of the non-Head Start children as having no known concerns. Essentially then, the study was biased in favor of the non-Head Start Children. Nonetheless, although there were no differences among groups in reading, math, written language, or receptive language, an examination of the means indicates that all Head Start children did as well or better than the non-Head Start children on these measures. In addition, they scored in the average range, when compared to national norms. On measures of general knowledge, communication, daily living, social skills, and total adaptive behavior, the Head Start children obtained significantly higher means. Measures of behavior indicate that the Head Start children had significantly lower mean scores on both subscales and total scale of maladaptive behavior, comparing parent reports. Although the number of teacher reports returned were too few to make meaningful comparisons, correlations between teacher reports and parent reports were significant. On the socialization scale, differences were not significant, at $p=.05$. They were however significant at $p=.10$, and, while not sufficient to reject the null hypothesis, should be viewed as supportive of other findings. On the parent questionnaire, non-Head Start parents reported they felt less able to provide a good learning environment, spent less time assisting the child on school work, were less likely to seek information about age-appropriate expectations, were more likely to resort to spanking when disciplining, were less able to find needed community services, and were less likely to feel that their involvement in their child's education resulted in any noticeable accomplishments.

Comparing Head Start children only, there were no significant differences among groups on any achievement or language development measure, on any of the behavior scales, or on the communication scale of adaptive behavior. However, on daily living, social skills, and total independent living scales, the children in the classroom model obtained lower means than the two groups of children who received a home visit. On the parent questionnaire, parents of children in the classroom model reported they spent less time assisting their children with schoolwork and were less likely to seek out information about age-appropriate behavior. They were also less likely to feel that their involvement in their child's education resulted in any noticeable accomplishments. These results are consistent with the findings of Murphy, Peters, and Bollin (1988) and likely reflect the differences in parent training among the three models.

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Evaluation of State Funded Head Start Programs: Using a Data Network from Multiple Sources

Amy Driscoll, Steffan Saifer, Randy Hitz

Oregon's Senate Bill 524 (1987) appropriated funds for the establishment of programs for children who are at risk of experiencing difficulty in school. Eight of the 11 funded programs were extensions of existing Head Start programs. This evaluation study was initiated during the first year (Hitz & Driscoll, 1989) to describe how children and families were served in three Head Start sites. The study was designed to describe programs and program effects according to changes in children, parents and families, and

staff. The design responded to the question of differences between programs in terms of: 1) environmental conditions (space, facilities, materials and equipment, room arrangements); 2) adult/child interactions; 3) staff qualifications and inservice experiences; and 4) expectations and perceptions of parents, community members, staff, and administration.

There is much dissatisfaction with the paucity and the approaches of studies about programs for at-risk students (Committee for Economic Development, 1987). Early research and evaluation studies of Head Start and other programs for children of low-income families were focused on IQ, readiness scores, and achievement indicators, and were conducted over a time period too brief to reveal all potential consequences (Beller, 1973). Dissatisfaction with results and a commitment to programs led to longitudinal studies in the 1980s with a broadened focus (Schweinhart & Weikart, 1980; Miller & Bizzell, 1983). A 1985 meta-analysis of 210 research reports on the effects of Head Start programs was directed toward a wider range of research questions, and reported positive impact on children's cognitive and socioemotional development, children's health, families, and communities where programs were operated.

Schweinhart, Weikart, and Larner's (1986) report, "Consequences of Three Preschool Curriculum Models," was accompanied by strong recommendations against the previously exclusive focus on intellectual and academic measures of program effectiveness and for the initiation of longitudinal and descriptive studies. This study responded to those recommendations and to the need for descriptive information about programs for the at-risk children and families. It used a quantitative/qualitative data network from multiple sources. The same approach has been used in current studies of child care (Kagen & Newton, 1989) that respond to broader questions about programs for young children.

The methodology for study and evaluation of Oregon's programs focused on three Head Start program sites. The sample of 51 children represented diverse cultures, urban and rural settings, diversity in program sponsorship and administration, and the variation in state geography. The first-year study included quantitative and qualitative data collection and analysis procedures in two phases. Phase one documented the planning and initial implementation process by using: interviews of staff, parents, and community members; observational records of planning and inservice programs; descriptions of children, family , staff, and community demographics, and developmental screening of children accepted into the programs. Phase two included: year-long case studies of individual children (two children per program site); year-long case studies of programs; continued interviews of parents, staff, and community members; documentation of specific program components (parent involvement, staff development, and communication with public school settings); and end of year developmental screening.

Three analysis frameworks guided interpretation of data: 1) pre-post comparisons of developmental screening scores, and of parent, staff, and community interviews; 2) descriptive profiles of programs; and 3) comparisons between sites. The pre-post differences were noted for developmental screening scores, and for parent expectations and community awareness of "at-risk" children and families within program sites. These differences were also noted between program sites. The latter differences were examined in the context of site descriptions, and child and program case studies. Differences in developmental screening scores and parent expectations were related to the following: 1) frequency and content of adult/child interactions; 2) frequency and type of staff development sessions; 3) community demographics. Community demographics and family characteristics were related to differences in community awareness. Few pre-post differences were noted for staff or administrative expectations and perceptions. Minimal program variation was observed in environmental conditions. In sum, this evaluation study with a data network from multiple sources responded to recommendations for future Head Start research (Lombardi, 1990), with "exploration of new areas" and "information on local initiatives."

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A Longitudinal Investigation of the Effects of a Neuroscientific Approach to Preschool Education on Children's Later Growth, Adjustment, Learning, and Development

Trudy M.Hamby, Robert C. Hardy, Marilyn Lewis, Jackie Sampers

Project MIND is a research and curriculum development effort that is pioneering a "neuroscientific approach" to early childhood education. Initiated by Project Head Start, it operates in Baltimore City, Maryland, under the auspices of three agencies: Head Start, the Institute for Child Study at the University of Maryland, and the Baltimore City Public Schools. Two groups of children are currently under study at two separate sites. Both groups represent a racial and socioeconomic mix; however, site #1 (MIND I) enrolls a group of 3- and 4-year-olds, and subjects are required to have a younger sibling who will follow them into the project; and

site #2 (MIND II) is a pre-K group of 4-year olds. Each year a new experimental group is enrolled, and children will be followed through the sixth grade.

In the MIND model the total preschool experience -- the setting for learning (learning environments) schedule, curriculum, staffing, and teaching methodology -- has been designed and implemented to be consistent with findings from the neurosciences about the structure and functioning of the brain (12) and the potential role of the external environment in increasing the probability that the range, density, and complexity of synaptic connections in and between neurons in the brain will be preserved and enhanced (6, 7, 10, 17). MIND children experience two entirely different learning environments (the perceptive-cognitive and socio-physical), designed in keeping with the theoretical formulations. They also become directly involved in changing elements of these environments according to curriculum focus. Long-term gains are predicted for the MIND children in six major areas of growth and development: physical, affectional, cultural/socialization, peer group, self-developmental (development of intelligence, cognitive processes, and concept of self), and self-adjustment (emotional). Also under investigation are family and cultural factors and their relationship to children's achievement and emotional/social development and behavior.

An overarching hypothesis concerning school achievement is that MIND children will not experience as great a loss as control groups in cognitive, socio-emotional, and other measures as they move through the elementary school grades. Data have been analyzed for three cohorts of MIND children who enrolled in the same school which housed the MIND pre-K program. These children all had the same kindergarten teacher and were administered the city's standardized achievement test batteries. The MIND children's scores were compared with those of children in two control groups who attended the same school and who were taught by the same teacher. In control group #1 were children who had had Other Preschool experiences (largely in private child development centers), and in control group #2 were children Without Preschool experience.

The findings for all three cohorts of MIND children followed a similar pattern, even though a different test battery was administered to cohorts #2 and #3. MIND children consistently scored higher than both control groups, although the level was not always statistically significant. These scores were in reading, mathematics, and language for cohort #1, and word analysis, comprehension, vocabulary, and mathematics for cohorts #2 and #3. A major difference between the MIND children in cohort #1 occurred on the language post-test. On the pre-test no differences were found between the three groups. After one full school year, only the MIND children scored significantly higher than the Without Preschool group (probability less than .05). The difference between the control groups was not significant.

At the first-grade level the same subjects were again administered the Metropolitan Achievement Test Battery by their public school teacher. Findings were similar to the kindergarten testing in that the MIND children consistently scored higher than the other two groups; however, these differences were not always statistically significant. In reading, MIND children maintained their scores, whereas the Other Preschool and Without Preschool groups scored lower than they did in kindergarten. (Note that declining scores with advancement in grade level has been a problem cited in Baltimore City schools.) In mathematics, the MIND children surpassed the Without Preschool group at the .05 level. It was at the second-grade level, however, that strong support was evidenced for the MIND long-term gain hypothesis. With less than two months into the second grade, MIND children surpassed both control groups. The difference between MIND and the Without Preschool group was significant at the .001 level, and between MIND and With Preschool at the .025 level. MIND children scored at grade 3.8 level, those with Other Preschool at grade 2.0, and those Without at grade 1.8.

Although pre- and post-testing of parents occurs annually with each new group of MIND children, no formal intervention has been undertaken to systematically influence parents' childrearing practices, their style of parent-child interaction, or variables affecting their perceived family environment. The premise is that by becoming involved with the children's program -- either through parent meetings, direct involvement in the classrooms, parent-teacher conferences, and/or viewing video footage of their children, and the MIND staff and program in action, their attitudes/values/behaviors toward childrearing will become more positive. An analysis of these data has revealed pre-post differences consistent with the above premise on the Family Environment Scale, although not always statistically significant, and sometimes true for one socioeconomic group or race only. Childrearing practices also followed a positive, hypothesized trend, as did relationships between style of parent-child interaction and task achievement.

MODEL PROGRAMS

Project MIND *Trudy M. Hamby, Dorothy B. Mapp, Robert T. Revere*

Project MIND is a research and curriculum development effort that forwards a "neuroscientific" approach to early childhood theory and curriculum. Initiated in 1985 by Project Head Start in cooperation with the Institute for Child Study, the University of Maryland, and the Baltimore City Schools, the project is in operation at two Baltimore City school sites. MIND I annually enrolls a mixed-age group (3- and 4-year olds) and is open only to families who have two children under age 5. MIND II is a pre-K program, enrolling a group of 20 4-year-olds annually. The groups at each site are stratified by race (10 Black; 10 white) and socioeconomic status (five middle and five lower within each race). Sample size increases yearly as the MIND I and II children move into both public

and private elementary schools. Follow-up data collection will continue through the sixth grade. To date, five cohorts -- 200 MIND children and their families -- are in the study.

From the field of the neurosciences, the MIND model draws predominantly on the concept of the Triune Brain as described and researched by Paul MacLean (12, 13); on the process of natural and environmental selection of synapses as stipulated by Jean-Pierre Changeux (6, 7); the selection and function of synapses, as discovered and researched by David Hubel and Torsten Wiesel (10); the relationships between environmental influences, modification of the chemistry and physics of the nervous system, and resultant changes in perceptual and ideational processes as reported by Daniel Alkon (1), Walle Nauta, and Valerie Domesick (17). From the field of psychology, the MIND model draws on Abraham Maslow's concept of a hierarchy of human needs (16) and Jersild's categories of the self-concept (11); from the field of education, Leslie Hart's concept of "downshifting," as stipulated in his Proster Theory (9); and from the field of human development, Daniel Prescott's scientific assumptions concerning behavior and his organizing schema, the Six-Area Framework, for classifying and categorizing behavior (19).

The basic premise of the MIND model is that the total preschool experience -- the learning environment, schedule, curriculum, staffing, and teaching methodology -- can be designed and implemented in such a way as to increase the probability that the range, density, and complexity of synaptic connections in and between the neurons of the three accretions of the human brain as described by MacLean (Striatal Complex, Limbic System, and Neocortex) will be preserved and enhanced, increasing the children's intellectual and behavioral range.

MIND children experience two entirely different learning environments (the perceptive-cognitive and socio-physical), designed in keeping with the theoretical formulations. They also become directly involved in changing elements of these environments according to curriculum focus. Long-term gains are predicted for the MIND children in six major areas of growth and development: physical, affectional, cultural/socialization, peer group, self-developmental (development of intelligence, cognitive processes, and concept of self), and self-adjustive (emotional). Although the project has not yet found assessment instruments for each of these major areas, current measures include: Bruininks-Oseretsky Test of Motor Proficiency, the Peabody Picture Vocabulary Test, Wechsler Preschool and Primary Scale of Intelligence, Vineland Adaptive Behavior Scales, and the Bolea Pictorial Self-Assessment Scale. Measures used to investigate family and cultural factors are: the Family Environment Scale, ChildRearing Practices Q-Sort, Self-Esteem and Locus of Control, and Parent-Child Interaction. As MIND children enter the Baltimore City Public Schools they are annually administered standardized achievement tests by the school system.

Since inception of the MIND program there was increasing awareness by staff and researchers that children's levels of self-esteem could dramatically affect their success or failure in accomplishing tasks. It also became clear that an expanded definition of self-esteem was needed in order to better reflect the MIND theoretical formulations as well as encompass all areas of the Six-Area Framework under study in the total project. Thus, the total self-concept became defined as one's perceptions of self (I am/am not...pretty), one's conceptions of self (I can/cannot...write my name), and one's attitudes about self (I feel/don't feel...happy); I should/shouldn't do this).

A concerted effort was then undertaken with the 1989-90 and 1990-91 cohorts to investigate children's self-assessments by means of the Bolea Pictorial Self-Assessment Scale, and to obtain validity data by means of: teachers' ratings, parents' assessments, behavioral data evidenced in audio and videotapes of children in action, analysis of children's drawings and paintings, and use of the House/Tree/Person measure. Based on individual findings, interventions were planned and implemented by MIND staff, and the Bolea Scale was readministered. Support was obtained for the following research hypothesis: Children's self-assessments will show a degree of consistency and predictability; there will be differences in the self-assessments of boys as compared with girls in the total scores as well as in scores in each sub-category of the Bolea Pictorial Self-Assessment Scale; intervention can facilitate change in self-assessment, that is, scoring will reflect less defensiveness and/or depressiveness and movement toward greater self-differentiation and improved self-esteem.

With this relatively small sample it was found that self-assessments were possible in the six-area categorical divisions of self-concept even at these young ages of 3 and 4. These findings support the view that self is not an imposed construct on children. The children's ability to get outside of themselves and assess themselves concretely and in detail reflects a high-level, temporal lobe function.

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Comprehensive Coordinated Preschool Model Program for Families With Children At Risk

Azar Hadadian, Lynn Thompson

Society has undergone many changes in the last few decades. These social changes have placed a high demand on families, and, in particular, on mothers as the focal point in their child's development. The Sameroff and Chandler transactional model emphasizes the plastic nature of both the child and the environment as they continually change in response to one another. The existence of excessive amounts of accumulated stress within the family system, which serves as the immediate environment of the young child, may limit parent capacity to act as the buffer for their children.

Current research on at-risk families, who are under high stress from multiple sources, strongly suggests that simply providing traditional formal support for these families is not sufficient. In order to positively empower/impact families, one must look at the delivery of services by providing comprehensive, coordinated, and intensive services that operate on a variety of levels at the same time. As more is known about the needs/issues of the disadvantaged families, Head Start is called upon once again to lead the war on poverty by incorporating newer, more effective services to their already strong foundation in an effort to continue meeting the needs of at-risk families.

The purpose of this presentation is to provide information on a Head Start affiliated community preschool program that can serve as a replicable model for other communities providing services for at-risk families. The Community Preschool Program was a two-year Federally funded program designed to provide coordinated services to at-risk families on a continuum for the purpose of assuring long-term benefits and change within the family. This program is located in Moorhead, Minnesota, a rural community with an approximate population of 30,000. Twenty families per year were involved with their children, who ranged from 3 to 6 years of age. These families faced multiple risk factors, but their behaviors were usually not serious enough for court involvement to force them into action. These families' often had involvement with many area agencies, but they were not receiving adequate services, as no single agency offers the means to fully meet the needs of these families. The Community Preschool Program was established with leadership from Head Start and in collaboration with representatives from 19 organizations, as a model to demonstrate that coordinated, comprehensive, non-fragmented services for parents and children are an effective and cost-efficient way to foster child development and improve family functioning. The needs of each family dictated which agencies should form a team of specialists to plan and set goals that would bring the family back into the mainstream of the community.

In the initial stage of planning, three different needs assessments were conducted through a cross-section of communities including the areas of business, education, health care, religion, and the community at large. Eleven areas were identified through these community-wide surveys. Several committees representing different agencies were formed. Based on collected data, a group of families were identified who had been involved with many area agencies but were "falling between the cracks" of program services.

The Community Preschool Program was established as the vehicle for operationalizing a comprehensive service delivery model for these families. Different sets of data regarding parental stress level as well as different evaluation forms have been collected. Preliminary analysis of our data has shown that this project has impacted the participating families in a favorable manner due to its service delivery model.

Furthermore, our data, along with current literature suggests: the importance of multi-agency, multi-disciplinary involvement in delivering services to families with children at-risk; the urgency of early intervention, before age 3; the need for longitudinal study in order to see the long-term effect of such programs; pressing needs for more local, state, and Federal government involvement; and an emerging need for more public awareness in rural communities.

The Agam Program: Visual Cognition as a "Basic" for Preschool Education

Sherman Rosenfeld, Batsheva Eylon

An eight-year research and development project has shown statistically significant improvements in the learning abilities of preschoolers who have taken part in an educational program designed to foster visual cognition. Designed by the Israeli artist, Yaacov

Agam, and tested by staff at the Weizmann Institute of Science, the program has demonstrated improvements not only in visual skills, but also in general intelligence and overall readiness for school, particularly in the areas of writing and math. The program was equally effective for children from diverse socioeconomic backgrounds. This fact, combined with the visual emphasis of the program, suggests that the Agam Program can make significant contributions to the cognitive growth of culturally diverse populations of young children, especially those who may have difficulties with verbal language.

The Agam Program is currently being implemented in Israeli preschools. One current goal is to implement the Agam Program in the United States. In 1983, staff from the Department of Science Teaching established the Agam Project, based on a program designed by the artist Yaacov Agam to develop visual literacy in young children. The staff includes experts in child development, curriculum development, science and mathematics education, and educational research. The project's ongoing goals have been to: 1) adapt the curriculum units and learning materials to Israeli preschools; 2) implement the program in Israeli preschools; 3) evaluate the program's implementation; and 4) conduct relevant educational and cognitive research relating to the Agam Program and the development of visual cognition.

The Agam Program is a developmentally appropriate curriculum for children aged 3 to 6 years old. Each of its 36 units is devoted to a single visual concept. These units progressively and logically integrate specific concepts with specific cognitive skills. There are logical relationships between the concepts covered, and there is a progressive and consistent structure of the skills that are developed in each of the units. Each unit contains about 30-40 activities. Units are divided into five activity categories: identification activities, memory activities, visual reproduction activities, reproduction from memory activities, and creative production activities. The program stresses a "hands-on" approach, multiple modes of representation,a cumulative presentation strategy, and minimum use of verbal instruction.

The project's development, implementation (including teacher training), evaluation and research work was first organized into two-year cycles. The first cycle (1983-85) focused on preschoolers in four pairs of preschool classes (an experimental and a comparison preschool class in each pair). The second cycle (1985-87) focused on preschoolers in 25 pairs of preschool classes. Other research (e.g., longitudinal studies), development, and implementation has continued to the present. Both quantitative and qualitative research methods have been employed. Quantitative tools include tests of intelligence and creativity (e.g., WPPSI, Raven Progressive Matrices Test, Torrence Test, Draw-A-Man Test), specially designed tests for each unit, and tests for transfer. Qualitative research methods included both open-ended and focused observations of the program in action, interviews with teachers and students, questionnaires for teachers, and a visual projective test for children.

Compared with children in the comparison classes, children who participated in the Agam Program demonstrated: a) a significantly higher ability to identify visual concepts in complex contexts; b) a more robust understanding of these concepts and better application of them; and c) better transfer skills in the areas of observation, mathematics readiness, and some aspects of reading readiness. The children also demonstrated a statistically significant improvement on standard intelligence tests (about six IQ points). Analysis of the results shows that the program was equally effective with children of diverse backgrounds, without regard to sex, socio-economic level or level of intelligence. Although the data indicate that the program helped all the participating children, there appeared to be special children who were dramatically helped by the program. Case histories of such children indicate that they tended to be non-social, introverted, and/or non-verbal.

The research findings support the following three assumptions: visual concepts and skills are of general and specific importance (e.g., in geometrical, mathematical, and scientific thinking); these concepts and skills may be systematically acquired; and early and systematic training in this area can make a significant contribution to a child's cognitive development in a wide variety of domains. In this regard, the visual language may be viewed as one of the basics in developing children's cognitive abilities and school readiness. This work strongly suggests that the Agam Program can contribute significantly to the cognitive growth of young children, particularly those from disadvantaged backgrounds.

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Early Start: A Model Literacy Program for Children Academically At Risk *Bonnie M. Kerr, Christine E. McCormick, Shobha Sinha*

Recent evidence suggests that children most knowledgeable about reading prior to formal reading instruction are most successful at learning to read (Adams, 1990; McLane & McNamee, 1990; Teale & Sulzby, 1986). This facilitating prior knowledge is a complex of familiarity with print, the language of books, and what it means to read. According to emergent literacy theory, becoming knowledgeable about literacy begins long before the start of formal schooling (Clay, 1987; Harste, Woodward, & Burke, 1984). Children who are successful with school reading instruction have often experienced many hours of informal guidance from supportive

family members on what reading is about, learned to value and enjoy reading and writing, and view themselves as entitled to becoming readers and writers. McLane and McNamee (1990) aptly describe the essence of these context-specific and socially mediated experiences with print:

For many children, the beginnings of literacy appear in activities such as pretend play, drawing, conversations about story book plots and characters, and conversations about the words on street signs or the labels of favorite foods. Such activities make it clear that children are actively trying to use, and to understand and make sense of, reading and writing long before they can actually read and write. Yet, there are many questions about how to incorporate these literate dispositions and behaviors into school activities, particularly when the school is designed to meet the needs of students from parallel cultures. Early Start, a pre-kindergarten program designed for 4-year-olds academically at risk, exemplifies a supportive school environment which promotes informal practice with and development in early reading and writing.

Illinois state legislation in 1985 authorized a new grant program which enabled, but did not mandate, school districts to operate pre-kindergarten programs for children identified as "at risk of academic failure because of their home and community environment." The Early Start grant, written by early childhood personnel in the Springfield Public Schools, was first funded in 1986. Children accepted into this program are those experiencing developmental delays but not to the degree that they qualify for special education services. The Early Start Program emphasizes language, which is integrated throughout the program, and the classes support exploration and active, manipulative participation by the children.

Each class was limited to 21 children and included a teacher, aide, and half-time helper. All classes included the following components in their schedules, although the sequence varied by class. Opening and closing circle time (30 minutes) were social times for discussions and activities, such as calendar and weather, story books, songs, current events, and introductions to new materials in the centers. Discovery time (45 minutes) allowed the children free-choice activities at nine centers: science, art, fine-motor, dramatic play, listening, library, water table, block area, and private corner. During this time the teacher moved from center to center, observing and interacting with the children. Small group instruction (30 minutes) was adult-directed, with the class divided into three groups, and frequently included story book reading and discussion, as well as activities on numbers, science, and social concepts. Gross-motor activity (15 minutes) and cleanup/restroom/snack (25 minutes) completed the daily schedule.

A unique feature of the Early Start program is that although the schedule is fairly traditional and the program is developmental in philosophy, that philosophy embraces many of the ideas of emerging literacy. This perspective assumes that children's literacy development begins very early in children's lives, and is socially mediated (Rogoff, 1990; Teale & Sulzby, 1986; Vygotsky, 1978) and situation specific (Brown, Collins, & Duguid, 1989). For example, the discovery centers incorporated literacy throughout the year and encouraged practical use of printed materials. In the library and listening center, trade books were accompanied by student-authored books. In the science area, animal pictures were labeled, and activities such as a sink/float chart had prominent labels and small objects for experimentation and categorization. In the art area, supplies were clearly marked, and art work was usually signed and captioned. In the fine-motor area, puzzles with letters and words were standard. Teacher-arranged contexts for interacting with print pervaded the entire curriculum, and these contexts allowed the children to experience and practice meaningful uses of literacy throughout the day.

To document the course of literacy development for children attending Early Start, an observation system was developed which measured students' literacy involvement over time. A total of 232 children in 12 classes were observed for one school day each month by trained observers. Eight of the classes were observed six times in a school year that was eight and a half months long. Four more classes added late to the program were observed four times, beginning late in the fall. Students' activities were recorded for every child as each child was repeatedly observed in sequence over the entire day. Each observed activity was coded to describe the classroom organization (whole class, small group, free choice, or routine activity), and the nature of the interaction (be it with teacher, another child, materials, or uninvolved). For all literacy activities the focus of the activity (e.g., book, numbers, letters, among others) and the process of engagement (e.g., guided participation and self-directed, among others) were noted. Over 16,000 literacy and non-literacy activities were recorded, providing both general level information about the classes and specific information about how the children were acquiring literacy. A detailed description of the observation process and findings are reported by Sinha, Mason, and Kerr (in preparation).

Examination of the coded literacy activities, 35% of the total number of observed events, revealed that the Early Start program incorporated emerging literacy theory by socially mediating literacy tasks that were too difficult for the children to complete independently and providing ample opportunity for independent informal practice of developing literacy dispositions and abilities. For 38% of the observed literacy activities, children were engaged with books. Usually, a teacher was present and would negotiate the meaning of the text with the students. Thus, the focus for the children was the teacher and the meaning she was helping them construct from the text. According to Vygotsky (1978), this guided support by a more capable member of society promotes development, and, in the case of Early Start, it made for students who increased in sophistication and participation over the course of the year. In the fall, for example, the teacher read a book to the whole class before dismissing them, but by spring she was involving students in language experience chart stories that reflected their language and thoughts. The number of activities involving reading and discussing books increased from 22% of observed literacy activities in September to 48% of observed literacy activities in March.

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To complement the social mediation of books, Early Start provided opportunities for informal use of print. Forty-seven percent of the observed literacy-related behaviors were self-directed, and, of those, most involved writing. The dramatic play area was one of the favorite spots for the children, and the teachers incorporated literacy easily. The area was a home at the beginning of the year, but throughout the year it changed. One time it was a fast food restaurant, where children wrote down orders and gave out receipts. Another time it was a supermarket, where children wrote down shopping lists and compared labels and receipts. Another time it was an office, with a cardboard copying machine, typewriter, desk, telephone and telephone book, and plenty of paper, pencils, paper punches, staplers, stamps, and stamp pad. Yet another time it was a post office, with mailboxes, letters, envelopes, and stamps. The percentage of observed writing increased from 16% of observed literacy activities in September to 25% of observed literacy activities observed in March.

Children attending Early Start acquired literacy within developmental and emergent literacy theoretical frameworks. The Early Start program demonstrates that literacy can be incorporated into preschool settings for children at risk in a balanced, meaningful manner. The socially mediated use of books coupled with the informal, self-directed writing promoted literacy acquisition and increased the children' participation in literacy activities. This approach has significant ramifications for all preschool programs, particularly those aimed at preventing future academic failure. They must follow in practice the shift theory has made from viewing reading readiness as part of general cognitive skills development to relating emerging literacy to the specific situations that generate being literate. Becoming literature is dependent on interacting with written language. A focus on language through informal, socially mediated activities and ample opportunity for self-directed practice provide young learners with specific opportunities for learning about reading and writing.

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A Consultation Model for Integrating Children With More Serious Disabilities

Bruce Cushna, Jean M. Zadig, Judith H. Brophy, Joanne P. Brady

The project has developed and expanded collaborative efforts among the University Affiliated Program (UAP) at Children's Hospital, the New England Resource Access Project (RAP), and the North Shore Community Action Head Start Project. Necessary interdisciplinary training and demonstration services have been provided in order to integrate children with more seriously disabling conditions into the Head Start classes. This training has been presented in the form of didactic presentations, discussions, joint planning sessions, and classroom demonstrations. The project is aimed at increasing Head Start's capability and willingness to serve more severely handicapped children by developing new competencies and promoting the realization that many of the adaptations needed can be readily achieved. By design, it has been community-based and involved other community agency representatives. The most immediate benefit has been the availability of allied health specialists and consultants who can present current information on a wide variety of disabling conditions as well as demonstrate appropriate therapeutic techniques. In turn, these specialists have been provided additional opportunities to gain deeper understanding of day-to-day demands in direct child care settings.

The major goal of this project is to increase Head Start's capacity to serve children with more serious disabilities in least restrictive environments. Specific objectives are: increased Head Start staff (including administrators, teaching teams, and social service workers); disability service skills; expanded services to children with more severe disabilities; broadened allied health care professional understanding of demands in community direct-care service environments; sharpened clinicians' skills in formulating practicable recommendations to least restrictive community agencies; enhanced relationships with other community agencies providing comprehensive services for Head Start children with disabilities; documentation of the process in such ways as to encourage other Head Start programs, RAP's, and UAP's to incorporate such training into their programs.

The UAP method of training is one of interdisciplinary involvement in exemplary service delivery. The unique aspect of this project brings such service into the community at the Head Start level. This team approach implies accountability in fulfilling more comprehensive planning. Derived plans must account for both the needs stemming from a disabling condition and the family and environmental circumstances. Coordination and monitoring of recommendations have been carried out by one of the team members, who in turn could access professional expertise at all levels. Attempts were also made to engage other community resources and family contributions at their optimal level. Teachers and parents have been trained to be better advocates for their children, to benefit from and sustain needed contact with community professionals (who are the continuing long-term service providers), and to be more effective in transitional planning.

Two dissemination handbooks are being prepared to document the achievements of the project and to provide training materials for future use. The intent of these handbooks is to encourage Head Start programs to enroll more severely disabled children by demonstrating the feasibility and success of such endeavors and to promote allied health care professional participation in more community-based programs.

MIGRANT FAMILIES

Preventing Child Abuse and Neglect in Mexican Migrant Farmworker Families: An Ecobehavioral Approach *Juan Preciado*

One of the most neglected minority groups, and one that is also prone to a high incidence of child abuse and neglect, is migrant farm workers. A study of New York State migrants found that migrant children are six times more likely to be abused and neglected than other children in the state (Alvarez, Doris, & Larsen, 1988). The lifestyle of migrant workers may be responsible for their higher than average incidence of child abuse and neglect (Cavenaugh, Jones, McClure, & Gorden, 1977). The Illinois Migrant Head Start Program (IMHSP) developed a project to address a higher than usual abuse and neglect incidence reports at a migrant site. The purpose of this report is to describe the project developed by IMHSP.

The multifaceted nature of child abuse and neglect was considered in designing a culturally relevant project. Project activities were integrated into the daily routines of the families, provided in the home setting, and responsive to the cultural characteristics of participating families. A Spanish-speaking college graduate, who was familiar with the culture and lifestyle of the farmworkers, was recruited for the parent aide position. The multimodal training package included the following components: behavioral parent training, stress management, nutrition, safety, and communication skills. Once trained, the parent aide subsequently used the principles and skills learned with all participating families. The project was implemented in a migrant farmworker site. Three intact families contacted with a total of eight children, aged 2-7½ years old, agreed to participate in the project. Each family fitted the profile for families at high risk for committing child abuse and neglect, and each had a handicapped child.

The primary measure used was incidence of child abuse and neglect. Agencies working with the farmworkers (e.g., migrant day care center and the migrant health center) monitored the families during the entire season, and were instructed to report any suspicion of abuse and neglect. Follow-up data were assessed one year later at the end of the harvest season. Secondary measures were taken both before and after the project ended to assess the impact of the project on parent/child interactions and home safety.

Not one incidence or suspicion report was filed by either the agencies working with the migrants or the state child protective services throughout the duration of the project and at a one-year follow-up. However, reports of child abuse and neglect did occur among nonparticipating families residing in the same camp while the project was in effect and one year later. The results of the project prompted the Illinois Migrant Head Start Program to start replicating it in other migrant sites. Results of the Pre-test/Post-test Parent-Child Interaction Checklist indicated that, for all three families combined, positive interactions increased while negative interactions decreased in frequency. The Pre-test/Post-test Home Safety Checklist showed that, for all three families combined, potentially dangerous situations were diminished. Results of the Exit Parent Interview indicated that all three families found the project and parent aide to be helpful, and that they would recommend it to other migrant farmworker families. The high degree of satisfaction with the project was partially due to the acceptance of the parent aide by the farmworkers' cultural milieu.

Financial constraints limited this project to a small sample of participating families. This project is further limited by the absence of a matched comparison group against which to judge its effectiveness. However, it seems unlikely that participating families would have remained non-abusive without the project for the following reasons. First, reports of suspicion and confirmed incidence of abuse and neglect were documented among non-participating families who shared similar characteristics to participating families during the program and one year after it had ended. Second, the families selected were at high risk for child abuse and neglect. Nonetheless, future studies should better ascertain the effects of prevention programs with low-income families. Given the paucity of data, this project should be seen as a first attempt to develop culturally appropriate services for child abuse and neglect prevention in migrant farmworker populations.

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Migrant Family Day Care Training Project *Toni A., Campbell, John Morlan, Elaine Luksus*

The special needs of migrant families who require child care are well known. An obstacle to placing migrant children in Head Start programs is the unavailability of programs that accept children by 5 or 6 A.M. and remain open until 6 or 7 P.M. Few center-based day care programs offer the extended hours. Thus, family day care homes (FDCH) can be an additional source of placements for migrant families. Because FCDH providers typically have little or no formal training in child development or ECE, they

tend to provide a limited range of activities. The nature of adult/child interactions, likewise, tends to be below the level of quality ideal for optimal development.

The Migrant Head Start Family Day Care Training Project was designed to improve the quality of care provided in FDCH settings and to assist providers in implementing Head Start Performance Standards, thus ensuring that migrant children experience quality care. To meet this goal, a two-part training program was designed. The first phase consisted of a pre-service course in which the FDCH providers attended six community college-based classes several months before the migrant season. A modified CDA model was the basis of the curriculum. During the intervals between classes, weekly in-home sessions were held with individual providers to reinforce the information, activities, and materials presented in the class. An in-service phase followed the initial training. After children were placed, in-home visits every other week for a minimum of 16 weeks were made by a trainer to assist the providers in meeting the Head Start Performance Standards and to implement the curriculum developed as part of the project. The trainer modeled appropriate interactions with children, assisted with the use of materials provided by the project, and helped in completing children's developmental assessments and reports required by Head Start. The trainer's role was to offer help in a positive, non-judgmental manner. Visits to the FDCH were also made by education, health, and social service staff.

Two groups of FDCH providers participated in the project. One group took part in all of the training and agreed to accept Head Start children. The second category of participants comprised FDCH providers who agreed to serve in the control group. These individuals had established day care programs and were licensed in the county. No one in the control group received specialized training or support services offered as part of the this project.

Several assessments were used to evaluate the effect of the training program. A rating instrument that reflected adherence to the Head Start Performance Standards was administered by the in-home trainers to both groups at the beginning and again at the end of the project. The perceived effectiveness of the pre-service classes was measured at each session. Open-ended questions were asked at a focus group session during one class. Finally, a series of three questionnaires was administered to parents of Head Start children attending the FDCH to assess their perceptions of the services received by their children. Each item was related to a Head Start Performance Standard. The parent ratings were completed before the child was admitted to the FDCH, midway through placement, and again at the end of the season.

The observed skills of the trained and the control groups before the onset of training were quite similar. The mean score for the control group was 2.34 (on a 5-point scale, with 5 as the highest rating), while the mean for the experimental group was 2.14. The participants in the training program appeared slightly less skilled than the control group. Ratings completed as the end of the season showed that the control group improved somewhat to a mean of 2.67. The experimental group, however, showed a marked improvement in the ability to meet the Head Start Performance Standards. Their overall ratings jumped to 3.50. This improvement may be accounted for in several ways. The reader is cautioned that the in-home trainers knew the group assignment of providers. Also, by the time of the second assessment, the trainers had spent many hours with the providers, with whom they had developed warm relationships. They would naturally be expected to want their "trainees" to do well. Equally plausible is that the providers were in fact more skilled and capable of meeting the standards as a result of having participated in the classes and receiving individual support.

Participants assessed the classes at each sessions. Questionnaires consisted of seven items and were rated on a 4-point, scale with 1 as the lowest score and 4 as the highest. Mean ratings of the classes ranged between 3.57 and 3.99. The providers felt that their time at the Saturday sessions had been well spent. Direct observation of participants during the classes clearly indicated that they were attentive and involved in the training. Comments from the focus session were fairly consistent across providers. A clear theme was that they wished to improve themselves professionally, and they perceived this program as a means of accomplishing that goal. For example, several indicated that they had learned about "child development and what to expect in each developmental stage."

Parents were asked about their beliefs in the ability of the providers to offer a safe environment, a good program, and to be responsive to the special needs of child and the family. All items related to the Head Start Performance Standards. Each was worded positively (e.g., "My provider talks to me on a daily about my child."). Providers were rated on a 5-point scale from (1) strongly disagree to (5) strongly agree. The questionnaires were written in Spanish and were administered at the FDCH. At beginning of care, parents' overall expectations for the providers were quite high. The mean rating across 11 items was 4.47. As the summer progressed, the mean evaluation of providers dipped somewhat to 4.24. By the end of the season, parental evaluations had exceeded their initial expectations slightly with a mean rating of 4.50. These ratings indicate two things to us. First, the parents entered their children in care expecting that they would receive high quality services. They had clear ideas about what was important for them and their children. It was also clear that the providers trained through the classes and supported by the in-home trainers were able to meet the high expectations of the parents.

There are fundamental differences between FDCH and center-based child care. However, the opportunity to choose type of care is not routinely available to less affluent families who regularly are offered center-based, subsidized care. We believe that a choice among types of care is a reasonable expectation for these low-income families also. A problem with FDCH is in achieving consistent adherence to performance standards. We believe that the model developed in this project is one that directly addresses quality issues in small-scale settings through the provision of intensive training and ongoing in-home support. The FCDH providers

involved in this project clearly demonstrated general improvement in their adherence to Head Start performance standards of quality and their ability to satisfy the parents whose children attended the FDCH.

Correlates of Maternal Depression Acceptance/Rejection Among Mexican-American Migrant Farmworker Mothers *Mary Lou de Leon Siantz*

The present study was designed to assess the problematic life conditions of Mexican-American migrant mothers and to investigate the effects of social support on the relationship of those conditions to maternal depression and acceptance/rejection. It was hypothesized that variations in kinds of social support would negatively correlate with maternal depression and account for more of the variation in maternal acceptance/rejection than problems in life conditions (education, employment, relatives, friends, partner/spouse, children, health, housing, finances).

One hundred Mexican-American migrant mothers of normal preschoolers, aged 3 to 5 who were currently registered with the Texas Migrant Council's Head Start program volunteered to participate in the study. Texas has the largest population of Mexican-American migrant farmworkers and is the primary home base for migrant farmworkers in the United States. Because of this, a sample from this state was thought to be representative of the Mexican-American migrant population. The Texas Migrant Council's Head Start program provided the farmworker families. The mothers were randomly selected from the lists of families registered at the central headquarters of the Texas Migrant Council in Laredo, Texas. Criteria for selection included having a normal preschool child 3 to 5 years who was registered in the Head Start program. Participants were initially contacted by the Head Start program parent coordinator, who was a major link between the family and the Head Start program. Because some families did not have telephones, the parent coordinator was the primary means of directly communicating with the mothers. Parent coordinators contacted mothers at the Head Start school when they were either off or picking up their preschool child. The mothers were told that the purpose of the study was to help others learn about what made their life either difficult or easy during the migratory harvest season. After the mothers consented to participate in the study, they were interviewed for two hours at three centers located in Laredo, Crystal City, and Carrizo Springs.

English and Spanish versions of the recruitment statement and consent form were available. Questionnaires had been developed in English, but they were translated into Spanish for the purpose of the study. The questionnaires were then translated back into English in order to assure linguistic and conceptual accuracy by a Spanish linguist. The questionnaire was administered by an interviewer. The mothers were given the option of being interviewed in the language of their choice. Trained bilingual interviewers individually read each question to the participants during the two-hour interview. Interview questions focused on four major areas: 1) demographic information; 2) social support; 3) depression; 4) problems in life conditions. Instruments used were The Inventory of Socially Supportive Behaviors (Barrera, 1983), The Stress and Support Family Functioning Interview (Colletta, 1981), and The Center for Epidemiological Depression Scale (Radloff, 1977). All had established validity and reliability in previous research. All were translated into Spanish and back into English in order to establish language equivalence.

A Pearson Moment Correlation was used to test the hypothesis that variations in kinds of social support would negatively correlate with maternal depression. Positive social interaction was positively correlated with depression, while child care support was negatively correlated with depression. When mothers shared their problems with others and diversionary activities such as joking, kidding, or talking about other personal interests were used, they were likelier to become depressed. The mean depression score in the sample was significantly higher than the mean score found in the general population. In fact, 41% of the sample scored at or above the cut-off for depression as measured by the CES-D, compared to 21% in the general population. Hierarchial multiple-regression analysis was used to explain the variance in maternal acceptance/rejection. The problems in life conditions scores for each respondent were forced into the equation in the first step. The total social support score was then entered in a block. Total social support accounted for 75% of the variance in mothers' acceptance/rejection of their children. Additional statistical analysis established that in the presence of child care support, migrant mothers were warmer toward their children.

Two important conclusions may be drawn from this research. First, access to social support is associated with maternal acceptance/rejection and lower risk for depression. However, as others investigating the effects of social support have suggested, if we are to understand the concept of support -- a factor that promotes maternal warmth, acceptance, and mental health -- research must focus on not only the structural components of support, such as access, but also on the content of the helping relationship. This is needed to determine the actual conditions of the social contact that constitutes support. Second, the findings of the present research underscore the importance of social support to maternal warmth, acceptance, and mental health in the presence of problematic life conditions. The absence or malfunction of such support with its consequent isolation is potentially more harmful to their mental health and parenting. For Mexican-American migrant mothers the economic necessity of working coupled with the number of the children at home makes the need for social support crucial to their mental health and the well-being of their children. It is vital for those working with these mothers to identify and help provide social support.

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HEALTH AND NUTRITION

Nutrition Surveillance in Head Start: An Effective Tool for Public Health Planning *Jean L. Wiecha, Ruth Palombo, Karen Peterson*

Nutrition Counts is a pediatric nutrition surveillance system coordinated by the Massachusetts Department of Public Health (MDPH) as part of the Centers for Disease Control Pediatric Nutrition Surveillance System (CDC PedNSS). Its purposes are to identify and monitor nutrition problems among low-income preschoolers, make this information available to Head Start and other agencies, and stimulate efforts to address issues identified. Collaboration between the state maternal and child health agency and Head Start on surveillance is a unique and effective means of addressing the nutrition and health issues of preschool children and their families.

Head Start programs in Massachusetts submit heights, weights, blood values, and other data from their nutrition screenings to MDPH annually. MDPH provides training and measuring equipment and monitors the accuracy of height and weight data. Once received at MDPH, nutrition screening data are analyzed, tabulated and returned to programs in a brief report that shows the program-specific prevalence of overweight, underweight, stunting, and anemia (according to PedNSS definitions). The report also lists individual children, identified by code only, who have these potential nutrition problems. MDPH also produces an aggregate statewide annual report for Nutrition Counts each year. Data from 1987, 1988, and 1989 have shown that growth problems are common among Head Start children. Overweight (three-year range, 9.6%-13.3%), short stature (7.2%-8.6%) and probable anemia (9.8%-12.2%) have been consistently and significantly elevated above levels expected in reference populations (5% for each of these measures).

Preventing and treating these conditions can improve children's current health and can help prevent chronic disease in adulthood. Overweight children may be obese (have excess body fat), increasing their risk of developing hypertension, hyperlipidemia, respiratory problems, and peer problems in childhood; moreover, tracking of obesity and associated cardiovascular disease risks into adulthood has been observed in some studies. Short stature may follow chronic illness or repeated acute illnesses, and may be associated with environmental stresses including poverty, lack of medical care, exposure to toxins, and disordered parent/child interactions that affect growth and feeding. While the long-term consequences of short stature are unclear, chronic inadequate food intake contributing to short stature may also be associated with poor intake of nutrients important to children's health and development. For example, anemia, which can result from dietary deficits, hemoglobinopathies, and lead exposure, is associated with attention and learning deficits, and may increase susceptibility to illness and lead poisoning.

Local Head Start programs, MDPH, and other agencies have found Nutrition Counts data useful for public health planning. MDPH has worked with Head Start to develop materials on childhood obesity and other nutrition issues and has distributed them to Head Start health coordinators. One local program, alarmed by the fact that 20% of children enrolled were overweight (according to CDC standards), is working with MDPH and local experts in pediatric growth and nutrition to develop a pioneering family and staff-

centered wellness project. The project seeks to improve family and staff nutritional knowledge and habits and increase children's physical activity. Other Head Start programs have expressed interest in replicating this model.

Two other benefits of Nutrition Counts should be noted. First, the training, equipment, reports, and data-quality monitoring that Nutrition Counts provides have helped to improve identification of at-risk children. Also, Nutrition Counts has stimulated interagency coordination around preschool health and nutrition issues. Ties have been developed, not only between MDPH and local Head Start programs, but also with regional Health and Human Services staff, USDA's Expanded Food and Nutrition Education Program (EFNEP), the Commonwealth's Bureau of School Nutrition Services, and local experts in childhood nutrition.

Our experience with this collaborative model of nutrition surveillance will be informative to other states interested in its replication. We dedicated the first two years of the project to building the system. Recognizing that manual data collection hinders some Head Start programs' participation in Nutrition Counts, we simplified our data form, hired college students to collect data at some programs, and developed computerized data collections at others. In the third year, the reliability of our findings and the usefulness of the data to local programs were increasingly evident, as the levels of overweight, short stature, and anemia remained high. With the systems for data collection and analysis in place, we devoted more energy to working with local programs to address nutrition problems. As these working relationships grew, local programs' motivation to participate in Nutrition Counts increased, and they began to generate ideas for nutrition projects with which we have been able to assist. We also began building a network of agencies that can provide additional nutrition resources for Head Start, including EFNEP and the state's Bureau of School Nutrition Services.

We are at the beginning of realizing surveillance's potential in Head Start. The strengths of the model are the commitment and motivation of agencies and staff involved, the unique partnerships it engenders, and the system's ability to collect, analyze, and disseminate meaningful data in a timely manner. Head Start is an ideal setting for health promotion because of its focus on families. Three years' experience has shown the importance of coalition building in useful surveillance data for program planning and the need for streamlined data collection to facilitate local programs' participation in the system. Ongoing data-quality monitoring is also essential.

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Health Promotion/Disease Prevention Model for Start Families *Kathy Sanders-Phillips*

(See presentation, Panel 108, page 129)

Nutrition: A Critical Element for Learning *P. Christian Ragland, Sayeeda Mannan, Tony-Adams Aburimi*

The observation has been made that children who are victims of economic deprivation (or poverty) are also frequently victims of malnourishment (Kotch et al., 1989; Paredes-Rojas & Solomons, 1982). If they receive food on a daily basis, they may not be recipients of the recommended daily allowances of vitamins, minerals, and other critical nutrients. They may experience physiological and psychological dysfunctions such as delays in growth and development, fatigue and lower energy levels, and short attention spans (Pollitt et al., 1982; Popkin et al., 1982). All of these factors may individually or in combination adversely affect a child's ability to learn and/or actively participate in the learning process (Roberts, 1987; Schneour, 1977; Steele, 1988; Van-Heerden, 1984). Partly as a response to such claims, some programs, such as Head Start, provide additional services to low-income families to facilitate their access to nutritional supplementation programs (Fosburg et al., 1984).

The major purpose of this retrospective study was to determine the effects of participation in the East Side Health District WIC (Women, Infant, Children) program in East St. Louis, Illinois, on children enrolled in the Southern Illinois University at Edwardsville (SIUE)/St. Clair County Head Start Program. WIC is a federally funded food, nutrition, and education program that provides nutritional supplements to individuals and families at nutritional risk. Specifically, WIC serves pregnant and/or nursing women, and children from birth to 5 years. Children who are enrolled in Head Start meet specific requirements that indicate that their families are economically disadvantaged. This one factor, in addition to other sociocultural-political entities, places these children at nutritional risk (Coleman, 1978; Tucker-Allen, 1986). Although the majority of Head Start families are eligible for the WIC program and are often enrolled, a significant percentage do not actively participate, i.e., they do not obtain and utilize the WIC coupons.

In this study, statistical analyses were performed to compare 101 children (participants in the WIC program and non-participants) on the bases of height, weight, hemoglobin, and performance on a learning assessment tool, the Chicago EARLY, and examine the relationships among the specified variables. Besides the interrelationships that were found to exist among the variables that were examined, the study revealed a major difference between the performance of children who were enrolled in the WIC program and that of the comparison group. Such findings validate the need to continue efforts for the enrollment and subsequent participation of eligible families in the WIC program, determine the specific level at which Head Start's efforts for education and counseling in the area of nutrition will be concentrated, and conduct further in-depth investigations.

The significance of this investigation is two-fold: 1) program personnel are initiating the development, implementation, and evaluation of assessment and intervention tools to assist children and families in fully utilizing all available community resources to optimize nutrition status; and 2) results can be used to educate community and government leaders on the importance of continuing nutrition services to preschool children because of the impact that it will have on the educational foundation.

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Head Start Health Component and University Students: A Marriage of Convenience

Barbara C. Martin

A community practicum for senior nursing students was developed with Southern Illinois University at Edwardsville (SIUE)/St. Clair County Head Start in 1989. The students originally were involved with case management for children with identified health problems. The nursing students were assigned children who needed referral for physical problems identified through screenings. They worked with the families to assure that the children had access to the needed care. This involved educating parents to the necessity of ongoing care for correction of the problem. In some instances, identification of resources for care was necessary. The process of working with the families provided an excellent community health experience for the nursing students. The struggle to find resources alerted them to the problems that face families who try to access the health care system. This program of case management has resulted in faster, more comprehensive resolution of health care problems for Head Start children and an enlightenment for senior nursing students.

The liaison between the SIUE School of Nursing and SIUE/St. Clair County Head Start has expanded over the past two years to include health screening services that also utilize senior nursing students. These experiences have proven so valuable to the nursing students that they have been offered as alternative experiences to students in other clinical practica. During the screening process, nursing students and faculty are able to identify additional problems that may be apparent. There is also an opportunity to speak with the teachers and, on occasion, parents. This dialogue facilitates information sharing and early intervention for the children.

The interaction of nursing students with Head Start has helped to identify breaches in continuity. Community health nursing students look at the whole family within the context of environment. They were required to interact with all Head Start components. Early on, it was apparent that more coordination was needed between the components. This was particularly apparent between the health, nutrition, and social work components. A new position has been created to oversee health, nutrition, and handicapped services. The students are encouraged to do their required health teaching project within the Head Start centers. The school of nursing also participates in staff in-service programs. In the future, the nursing students will participate in providing parent education for self-health care for their children and themselves. In addition to providing services, the students are role models for the Head Start children. In the setting of their own centers, the Head Start children see nurses in action. Even though the initial contact may be somewhat painful, the long-term reaction of the children is to relate, "I'm going to be a nurse, too." It is particularly important that the minority children are exposed to the minority nursing students, since there is a disparity of minority students in health care fields. The marriage of convenience has improved the referral process for the Head Start children and has increased compliance with follow-up care. It is truly beneficial for Head Start as well as the nursing students.

ASSESSMENT

The Relationship Between Mothers' Perceptions and Child Development in Three Ethnic Groups

Sr. Mary Sheridan

The Parent's Perception Index (PPI) is a psychosocial screener of strengths and risks in the family environment of children aged newborn to 12 years. It was designed to meet the need in preventive services for children, on a comprehensive level. Reliability and validity testing was done on the PPI at the Comprehensive Family Care Center at Albert Einstein College of Medicine, Bronx, NY, in 1985. The medical, psychological/psychiatric, and social service staffs at the site assisted in the assessments made on each family to verify the interrelationships among relevant variables and the perception of each parent in regard to her child. Sixty low-income, urban mothers and their children aged 1 month to 33 months participated in the study. They were from three ethnic groups: Black, Hispanic, and white, with the Hispanic population having the choice between an English and a Spanish edition of the PPI. Case aides ethnically matched to the participants were trained to reliability and obtained the data on the index from the mothers.

The theoretical formulations of Hadley Cantril and other experts on perception, along with the research findings on the Self-Fulfilling Prophecy, formed the base for the rationale of the PPI. In Cantril's theory, called Transactional Perception, behavioral plans are always the offspring of a person's perception. He tested his theory worldwide, in 30 countries, in terms of the political scenes current there and found a high correlation between perception and behavioral plans to remedy or tolerate the existent situations. Other researchers, such as Jerome Bruner, Renato Tagiuiri, C. Henry Kempe, and Robert Rosenthal confirmed Cantril's theory in interpersonal situations.

Using specific data from behavioral observations at the research site, home visits, and mothers' own verbal reports, the correlation between mothers' perception and their nurturant behavior was .82, with the following ethnic breakdowns: Black, .86; Hispanic, .82; white, .80, with a probability greater than .001 for all three groups. Other relevant variables examined in the study correlated highly with maternal perceptions. Reliability testing on 137 mothers, which included the 60 in the follow-up study and 77 whose children were older, revealed an internal consistency alpha of .86 and a test-retest correlation of .97 after a two-week period of presentation of the PPI. A simple checklist of 30 items, easily scored by parents or any other caregiver, is the hallmark of the PPI. The items were taken from the physical, psychological, and social dimensions of children's personalities as described by their mothers. Factoral analysis revealed that the PPI separated into five factors in this population: burdensome (the strongest), pleasurable, cooperative, resistive, attractive. Each factor loaded comprehensively, e.g.," boring" was within the same factor-category as was "fearful," "a time-problem for you," and "reminds you of someone else." No significant ethnic differences were found in the study, but useful lesser differences were found; especially interesting was the lower consistency alpha for the bilingual Hispanic group (.73) vs. .93 for white and .86 for Black. Subsequent conversations with the bilingual group revealed that they (not the monolingual Hispanics) read the PPI in English, as learned in U.S. schools, but with a Hispanic mind set. Thus "attractive looks" of a child was interpreted as a mannerism (looking at you under his eyelashes), rather than as a physical characteristic. The word "happy" was found to have 11 different meanings for the bilingual Hispanics.

Given the high-level outcomes on the entire study, the PPI may be used by service providers for both interview purposes and research. It may easily be used pre-and post-service for the prevention of child abuse and neglect, tracing the need for behavioral modifications back to perceptions of the parents rather than simply to behavioral styles. The potential for change in parents' behavior may be increased in therapy through the use of ventilation, cognitive dissonance, insight, and social support systems.

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Using Child Assessments in Program Development and Evaluation

Charles W. Hill, Suzanne D. Hill, Sharon Hutson, Janna Rode, Dianne Short, Judith Loyde

(See presentation, Roundtable 214, page 415)

Screening Head Start Children in a Large Multi-ethnic Urban Population

Daryl Greenfield, Susan Gold

(See presentation, Panel 113, page 175)

Observing Young Children in Action to Assess Their Development *Lawrence J. Schweinhart, Shannan McNair*

Head Start needs good measures of child development, but few such measures are available (Goodwin & Driscoll, 1980; Meisels, 1985). Head Start needs these measures because good teaching depends on good assessment, parents deserve sound information on their children's development, and taxpayers deserve to know that their investment in Head Start programs is worth making. In the absence of good measures of child development, there is the danger that inappropriate measures will be substituted -- measures that misinform teachers, parents, and taxpayers about the progress of Head Start children and the effectiveness of Head Start programs (Zigler & Trickett, 1978). The Child Observation Record (COR) was developed to meet the need for a feasible, reliable, and valid measure of children's development in Head Start programs. The COR project, funded by the U.S. Office of Human Development Services, involved development of materials, recruitment and training of teachers to observe children, and collection and analysis of data on the reliability and validity of the COR.

COR procedures are as follows. For several months, the teacher writes brief notes describing episodes of young children's behavior in six domains of development: initiative, social relations, creative representation, language and literacy, logic and mathematics, and movement. Then, on the basis of these notes, the teacher identifies the child's behavior on 30 five-level COR items representing the six domains of development. In the summer of 1989, project staff recruited and provided COR training to 64 Head Start teams of teachers and assistant teachers in the Detroit metropolitan area. These teams served about 2,500 children a year: 51% Black, 26% white, 14% Arab-Chaldean, 7% Hispanic, 2% Asian, and 1% Native American. Each teaching team attended a three-day COR training workshop in August 1989; a few assistant teachers attended a one-day make-up workshop instead. A year later, they attended another one-day training workshop; project staff also conducted or made presentations at various staff meetings. Throughout the project, a project staff member and the Head Start education coordinators provided assistance and maintained quality control by visiting classes to observe COR administration, review anecdotal notes, and provide the teams with feedback and clarification. The success of the project depended on such support.

COR items are appropriate for young children 3 to 5 years old regardless of the curriculum approach they experience. The instrument and its manual, originally developed for use by persons who used a particular curriculum approach, was revised during this project to minimize curriculum-related jargon. Sixty percent of the teachers in this study had no previous training in the curriculum approach.

To make estimates of COR reliability and validity, teaching teams collected three rounds of COR data in the fall of 1989, the spring of 1990, and the fall of 1990. Alpha coefficients of internal consistency for subscales were at acceptable levels in fall 1989 and in fall 1990, ranging from .67 to .93. The alpha coefficients all improved over time, probably because of the participants' training and practice and the instrument's improved clarity. Also presented are estimates of the reliability across observers -- correlations between pairs of CORs independently completed by teachers and assistant teachers, 10 children per team -- 419 children by 43 teams in fall 1989 and 484 children by 59 teams in fall 1990. Correlations between subscales varied from .57 to .76, with the lower correlations for the briefer subscales. These correlations are low but acceptable. It should be kept in mind that they represent ratings made under field conditions by practicing teachers and assistant teachers. Data for a third set of reliability estimates, comparing COR ratings by outside observers with those of teachers and assistant teachers, have also been collected and are now being analyzed.

The validity of COR scores was assessed by looking for expected correlations with other variables, including children's age, gender, Head Start experience, and their mothers' years of schooling, each teaching team's program implementation scores, and the staff's training and curriculum orientation. For example, COR subscale correlations with age were moderately positive as expected, ranging from .22 to .45. Correlations between COR subscales and mothers' schooling were virtually zero -- evidence of a desirable lack of association between the child's family background and COR subscale scores. Correlations between COR subscales and similar subscales on the McCarthy Scales of Children's Abilities for a subsample of 98 children ranged from .37 in the motor domain to .53 in the verbal domain. In future years, it will be possible to continue this study to examine the predictive validity of the COR, that is, how well it predicts such measures of school success as achievement test scores and grade placement.

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MENTAL HEALTH/BEHAVIOR

Mental Wellness Innovation: :"Growing Up Strong" Prevention/Parents Programs *Judy Towry, Angelina Merenda O'Bar, Judith Hammer*

Growing Up Strong (GUS) is a curriculum designed to develop strong mental health in preschool children. This program will help create the best possible classroom environment for promoting positive mental wellness, the first and most basic line of defense against chemical abuse. The Center for Child and Family Development realizes that the best way to prevent drug abuse and a

number of other serious problems that can develop later in life is to help every child develop strong mental health. The name of this program, Growing Up Strong, reflects an image of strong mental health, which includes such concepts as a strong, positive self-concept, the ability to take responsibility, behave in a socially acceptable manner, cope with and express emotions appropriately, and develop assertiveness, problem-solving, and decision-making skills.

From the moment of birth we begin forming the attitudes and behaviors that will shape our lives. The environments in which we grow and the experiences we have all contribute to our mental and physical development. As Secretary of Education William J. Bennett summed up the drug problem in Schools Without Drugs: "In America today, the most serious threat to the health and well-being of our children is drug use...Even more troubling is the fact that children are using drugs at younger ages. Students today identify drugs as a major problem among their schoolmates as early as the fourth, fifth, and sixth grades...The percentage of students using drugs by the sixth grade has tripled during the last decade."

Drug use impairs memory, alertness, and achievement. It erodes the capacity of students to perform in school and to think and act responsibly. The consequences of using drugs can last a lifetime. The best way to fight drug use is to begin prevention (promotion of mental wellness) efforts before children start using drugs. Prevention efforts that focus on young children are the most effective means for fighting drug use.

The Growing Up Strong curriculum is designed for preschool and elementary school children. It is tailored to their specific development levels and interests. The best way to prevent drug abuse and a number of other serious problems that can develop in older children is to help every child develop positive habits, attitudes, and life skills as early as possible. This philosophy is based on the conviction that prevention, as it is practiced in good dental and nutritional health, rather than intervention, is the best approach. Schools have been the focal point of many drug prevention activities, and no doubt will continue to be responsible for educating students about drugs and alcohol. However, no one institution or entity can solve the drug problem. To be effective, families, schools and communities must start early and work together to help children grow up strong.

United Head Start has managed grants for implementing Growing Up Strong to parents, staff, and children in 1989-90 in 27 kindergarten and first-grade classrooms from four school districts and 10 second- and third-grade classrooms; in 1990-91 to the fourth- and fifth-grade classrooms. Using clear examples of teacher/child activities and family-oriented activities, the Growing Up Strong program has demonstrated phenomenal success in promoting appropriate behavioral changes in young children. An observable behavior instrument has validated program effectiveness with more than 10,000 preschool age to fifth-grade children of various ethnic and cultural backgrounds. The Growing Up Strong Observable Behavior Checklist has been used as a pre-test and post-test instrument.

The program documents the children's needs in six basic areas: positive self-concept, self-esteem, decision making, problem solving, assertiveness, and accepting responsibility. Ideally, the materials and concepts will become incorporated into daily lesson plans. The program helps create a classroom environment that promotes positive mental health -- an important factor in preventing the early onset of substance abuse. As the lead grantee for the implementation, the Head Start program has a mechanism for promotion of the six basic areas not only to the preschool children enrolled in Head Start, but also the public school teachers, parents, and children who are participants.

Preschool Intervention With Disadvantaged Children: Classroom Behavior and the Transition to School *Juliet Nuss, Lynne V. Feagans*

This study explores children's transitions from a preschool intervention program to school. Unlike most studies, this one has concentrated on behavioral effects rather than cognitive effects, using the Schedule of Classroom Activity Norms (SCAN). Children who were at risk for school failure participated in a preschool intervention program, and in kindergarten were compared to a control group and a local population sample, both of which had not received the intervention.

The children in this study were drawn from a longitudinal study at the Frank Porter Graham Child Development Center, known as the Abecedarian Project. The children were judged to be at risk for poor intellectual development based on a high-risk screening index. After children were selected they were randomly assigned to either an experimental or a control group. When a child entered kindergarten another of the same sex was randomly chosen from the same classroom for the purpose of comparison (LPS group). Children in the experimental group entered day care beginning at 3 months of age and continued until they entered kindergarten at age 5.

From kindergarten to second grade the children were given a variety of achievement and intelligence tests. Each child was also observed during academic classroom activities using the Schedule for Classroom Activity Norms or SCAN (McKinney, Feagans, Ferguson, & Burnett, 1978). The present study is based on the kindergarten data.

A 2 (sex) x 3 (group) x 2 (time) repeated measures-analysis of variance revealed significant main effects and interactions in four behaviors: constructive play, teacher interaction, gross motor-inappropriate, and aggression. There were group differences for teacher interaction, with the experimental group interacting more with the teachers than the LPS group, and for aggression, with the experimental group exhibiting more aggressive behaviors than the LPS group. There were season effects for constructive play, for teacher interaction, and for gross motor-inappropriate behavior, all of which showed a decrease in behaviors from the fall to the spring in all three groups. There were sex differences in constructive play and aggression, with males exhibiting more of each

behavior than females. Finally, there was a season X sex interaction for teacher interaction, with males decreasing in the amount they interacted with the teachers while females remained constant. There was also an interaction effect for season X group between the experimental and LPS group, and between the experimental and control group, with the experimental group decreased in aggressive acts while the LPS and control groups increased.

In the experimental group, aggression and constructive play correlated negatively with many of the IQ and achievement test scores, while constructive participation correlated positively with many of these measures. In the control group, off-task behavior in the fall correlated negatively with many of the measures. Likewise, peer interaction and self-directed activity in the spring correlated positively with the measures, and constructive participation in the spring correlated negatively. There were no significant correlations in the LPS group.

These results did not agree with the hypothesis that experimental children would exhibit more positive behaviors than the control group. All groups were very similar in their classroom behaviors, except for four behaviors, where the differences were only significant in the fall. The finding with regard to aggression agreed with Haskins' (1985) results that the experimental children were more aggressive, but only in the fall. The differences disappeared in the spring.

These findings seem to indicate a transition to school phenomenon for the experimental group that agrees with Honig's (1982) findings. Why were these children more aggressive? There are several alternatives to this question: 1) Experiences in day care seemed to make the experimental children more aggressive by providing them with peer socialization rather than adult socialization. 2) The peer group that the experimental group was exposed to in kindergarten was different from the peer group in preschool. The classes in their preschool were more homogenous as far as race, SES, and previous educational experience. 3) The teachers' expectations were different in kindergarten than they were in preschool. 4) The experimental group was actually being more assertive and not aggressive. They were not passively accepting their present situation because their previous classroom training had taught them to assert themselves.

Play-Buddy Project: A Preschool-Based Intervention to Improve the Social Effectiveness of Disadvantaged, High-Risk Children *John W. Fantuzzo, Brian Sutton-Smith, Rosemary Mazatenta, Howard Stevenson, Sally Canning, Patti Holliday, Lauren Yellin*

National demographics reveal that increasing numbers of children face stressors that may have a devastating effect on their social and emotional development. The U.S. House of Representatives' Select Committee on Children, Youth, and Families forecasts that by July 1990, 40% of the approximately 64.3 million persons in the U.S. under the age of 18 will be between the ages of 0 and 5. Although the proportion of children in the general population has decreased steadily since the 1970s, fertility rates have dropped most markedly for Caucasian women and women with more formal education. Thus, increasing proportions of the child population come from the least advantaged segments of our society. Moreover, these children and their families are not randomly distributed geographically. Because of economic and ethnic segregation, they reside primarily in large, urban areas, where overwhelmed social service agencies, in constant crisis, struggle to meet their needs.

Changes in the structure of the family have added greatly to the stress experienced by these disadvantaged families. Although the percentage of births to unmarried mothers and the percentage of children being raised in single-parent households has increased in the general population, this rise has been most extreme for the African-American and Hispanic communities. By 1988, the percentage of African-American and Hispanic children living in households headed by single mothers had risen to 51% and 21%, respectively. The burden of financially supporting the family increasingly has fallen in the lap of these minority women. Thus, many of these women have been forced to enter the work force or rely on public assistance. Since the money received is not enough to meet the skyrocketing cost of raising a family, it is not surprising that approximately five million children under the age of 6 (one out of four) are living in poverty.

Preschool children in these family circumstances are at great risk for failing to acquire important developmental competencies. One of the most important age-appropriate competencies for preschool children is the ability to participate fully in play activity with peers and to be accepted by them. Play activity mediates a great deal of the cognitive, language, social, and emotional development of this age group, so when stress factors interfere with a preschooler's development of this competency the effects can be negative. Young children who fail to form satisfying play relationships with their peers, especially when their total ecology is unsupportive, are likely to experience continued incompetence and maladaptation throughout their lives. Indeed, early social dysfunction has been shown to be not only the strongest indicator of continued social difficulties in childhood, but also the best predictor of adult social dysfunction and psychopathology.

The play of resilient children is a rich natural resource. Fantuzzo and his colleagues have demonstrated that it is possible to improve the social behavior of socially ineffective preschool children through guided play training with a resilient play buddy. However, these efforts have only just begun to utilize the educative and therapeutic potential of this play and to study what makes it so powerful. In order to realize this potential, these interventions need to be further implemented and analyzed more thoroughly. The present state of play research indicates important components of healthy play that should be analyzed, such as: play themes, play roles, how play

is enacted, and how verbal and nonverbal features contribute to play communication. A more detailed analysis of preschooler's play is needed so that we can determine which play devices differentiate socially successful from unsuccessful children.

The primary objectives for the project are to study carefully the play tactics of the most socially effective, resilient preschool children in Head Start and identify the play tactics that differentiate these children from socially ineffective children, and to design, implement, and evaluate a modified version of Fantuzzo's Play Buddy intervention that is aimed at improving the social effectiveness of disadvantaged, minority, preschool children in a community-based Head Start Center. Eighty socially rejected or neglected preschool children and their mothers will participate. The participants will be drawn from a pool of approximately 650 children who are enrolled in 10 Head Start Centers in the highest-risk zip code regions of Philadelphia (i.e., highest density of preschool child maltreatment, poverty, and drug-related crime.

The primary questions of the research are: 1) What is the entry problem, that is, what is the extent and severity of social dysfunction for this population of preschool boys and girls who are living in the most stressful areas of Philadelphia? 2) Which play tactics identified from the rich early childhood education and play literatures best differentiate socially successful from unsuccessful preschool children? 3) Is the revised intervention implemented as planned? 4) What works? What works better? 5) Are treatment gains sustained at one year follow-up?

The Role of Nonverbal Social Processing in Children's Behavior *Stephen Nowicki, Jr., Marshall P. Duke*

The purpose of the present paper is to report the work that has been done to develop a measure of nonverbal social communication abilities, establish the connection between nonverbal social processing abilities and the experience of social rejection and social maladjustment in children, and introduce a framework for remediating nonverbal social communication deficits.

Building on the work of communication theorists, it was hypothesized that children who have difficulties processing nonverbal social information communicated through facial expressions, tones of voice, gestures, postures, and interpersonal distance would also have associated difficulties in interpersonal interactions. To assess this possibility, the author developed a series of measures, the Diagnostic Analysis of Nonverbal Accuracy (DANVA, Nowicki & Duke, 1989), to assess the receptive and expressive nonverbal social processing abilities of children between the ages of 4 and 10. Data suggest that compared to children who scored high on the DANVA, those who scored low (and were assumed to have nonverbal social processing deficits) were found to be less popular, more external in their locus of control expectancies, and to score lower on standardized tests of academic achievement. One of the assumptions of Nowicki and Duke (1989) is that the more severe the nonverbal social processing problems the greater the probability that children will show emotional adjustment difficulties. To test this possibility a series of studies was completed comparing emotionally disturbed children with those who were not. Results showed, as predicted, that emotionally disturbed children were less accurate processors of nonverbal social information than their non-emotionally disturbed peers. In addition, it was found that conduct- disordered children (commonly referred to as "externalizers") were less likely to show nonverbal social communication difficulties than emotionally disturbed children (commonly referred to as "internalizers"). Nonverbal social processing deficits appeared to be more likely to be associated with emotional disturbance in girls than in boys who are emotionally disturbed and in children who are externally as opposed to internally controlled (Nowicki & DiGirolamo, 1989).

Building on the research that suggests improvement of nonverbal social processing skills as children become older, Nowicki theorized that the impact of nonverbal social processing difficulties should be more significant as children become older, reaching their maximum negative outcome during adolescence when the requirements for interpersonal relationships become much more complex and punishments for interpersonal mistakes much more severe than they were earlier in life. To test this assumption, subjects completed the DANVA, a locus of control scale, and sociometric indices of popularity in the fifth, and, two years later, in the seventh grade. By using a series of cross-lag correlations, it was shown that popularity in the seventh grade was predicted by the degree of nonverbal social communication accuracy in the fifth grade, especially for boys. Further, boys whose fifth-grade nonverbal social processing ability predicted their seventh-grade lack of unpopularity also became significantly more externally controlled as well.

Besides the development of reliable and valid ways of measuring nonverbal social processing abilities in the form of the DANVA and the program of studies underway to establish the connection between nonverbal social processing difficulties and parallel difficulties in interpersonal functioning, a third research focus involved devising interventions for improving children's nonverbal social communication abilities. If nonverbal social communication difficulties contribute to the occurrence of social rejection and interpersonal problems, then improvement in this kind of information processing also may eventually help facilitate more effective interpersonal functioning. To assess this possibility, a series of studies was undertaken to remediate the facial expression processing shortcomings of children. Using an intervention framework patterned after learning disability remediation, children with facial processing difficulties participated in six-week remediation programs. The intervention program was organized to help the children learn to discriminate facial expressions, identify facial expressions accurately, express facial expressions appropriately, and apply facial expression information to interpreting social situations. Results indicated that compared to children in a control group, those in the intervention group improved their facial expression processing accuracy and popularity ratings. The intervention framework, called R-DANVA (Nowicki, 1990), is being expanded to include the other types of nonverbal social processing abilities, postures, gestures, personal space, and tones of voice.

Research is now underway in an attempt to identify the different sources of nonverbal social processing difficulties. It is theorized that nonverbal social communication deficits can result from a biologically based social-perception learning disability, faulty social learning in the family, or the debilitating effect of anxiety. Remediation programs should have differential effects depending on the source of the nonverbal social processing difficulties.

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Antecedents of Locus of Control of Reinforcement *Stephen Nowicki, Jr.*

The identification of those individual characteristics that may determine the ability of people, especially children, to cope effectively with stressful events or situations has important implications for adaptation. In fact, Lazarus and Launier (1978) believe that finding out "the ways people cope with stress (may be) even more important to overall morale, social functioning, and health/illness than the frequency and severity of episodes of stress themselves". Rutter (1984) has searched for possible coping factors by studying "resilient" children who overcame "disadvantaged or even brutalized childhoods" to become normal successful adults. He identified a number of possible factors that potentially contributed to the development of "resiliency" in children. Primary among these characteristics appeared to be, "a sense of self-esteem and efficacy -- a feeling of your own worth, as well as a feeling that you can deal with things, that you can control what happens to you. One of the striking features of problem families is that they feel at the mercy of fate, which is always doing them an ill turn. So one important quality is a feeling that you are in fact master of your own destiny." "Master of your own destiny" is comparable to a locus of control of reinforcement (LOC). This reflects the perception of the connection between one's actions and the resultant consequences of those actions. Although locus of control represents only one part of Rutter's overall social learning theory, it is associated with a wide variety of significant behaviors. Perceptions of internal control, compared to perceptions of external control, are generally found to facilitate more active search of the environment for information relevant to salient goals, superior cognitive processing, and recall of that information, and more incidental as well as intentional learning; more spontaneous engagement in achievement activities, selection of more challenging tasks, and better ability to delay gratification and to persist under difficulty; higher levels of academic and vocational performance and more positive achievement-related attitudes; better interpersonal relationships, more assertiveness toward others, and more liking and respect from others, despite greater resistance to their influence; and better emotional adjustment (higher self-esteem, better sense of humor, less anxiety, less depression, less severe psychiatric diagnoses, etc.) and greater reported life satisfaction and contentment (Crandall & Crandall, 1983).

This summary of locus of control findings suggests that children with internal control expectancies seem better able to manage the anxiety, tension and other negative feelings generated by stressful events and to take appropriate actions to deal with outside stressors. Although citations for studies of locus of control expectancies run into the thousands, those focusing on antecedents number less than 50. The results of these cross-sectional studies, though, are remarkably consistent in suggesting that parents who allow and encourage independence, and who are characterized as warm and nurturant and consistent in applying discipline are more likely to have children with internal control expectancies.

The purpose of the present research program is to identify antecedents of internal control expectancies through the use of longitudinal methodologies. In the first study, already obtained data from children born in Great Britain during April of 1975 will be analyzed. Called the Child Health and Education Survey (CHES), it involves the tracking of 23,678 children at birth, 5 years, and 10 years of age. As part of the CHES, children completed the anglicized Nowicki-Strickland Internal-External Control Scale. Preliminary analyses show considerable support for parent activities being associated with children's internal control expectancies.

In the second study, all children born in the County of Avon (n = 11,000), in England, between April 1, 1991, and March 31, 1992, will be tracked for the next seven years to study the determinants of physical and mental health. Five months before the birth of their child, and 18 months, five years, and seven years afterwards, parents will be assessed on a variety of measures. Among them will be the Adult Nowicki-Strickland Internal-External Control Scale. The scale was successfully pilot-tested on 237 sets of parents. In addition, children will be given the Preschool and Primary Nowicki-Strickland Internal-External Control Scale when they are 5 years of age, and the Children's Nowicki-Strickland Internal-External Control Scale when they are 7.

Corresponding studies are simultaneously underway in Greece (Athens), Spain (Majorca), Russia (Jaroslav), Czechoslovakia (Brno), and the Isle of Man. Because the Nowicki-Strickland locus of control scales have been translated into the languages of these countries (and 29 others), they will be used in these studies as well. An especially interesting component in the Avon County study is that a 10% subset of subjects will participate in a home observation when the children are 18 months of age. Parent-child interactions will be recorded and analyzed for relationship to parents locus of control orientation and later child orientation. In the third study, a new methodology is being developed that could circumvent the necessity of waiting for longitudinal data to accumulate. In this approach, home movies and home videos of children whose control orientation is already known are analyzed for factors predicted to be related to control beliefs. This methodology has been successfully applied to investigating

antecedents of schizophrenia. Data from this and the other two studies can be examined for convergence of findings and a basis for intervention programs.

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Measures of Parental Characteristics as Predictors of Child Behavioral Adjustment and Self-Esteem for Children 2-7 Years of Age *Richard R. Abidin, Jack Brunner*

The present study reports on the development of two self-report parental characteristics measures theorized to be of major importance to understanding the determinants of parenting behavior, and to children's behavioral adjustment and self-esteem. The variables for which the measures were developed are: the Parenting Role Scale (PRS) and the Parenting Alliance Inventory (PAI). These measures represent parental characteristics that have been theorized or demonstrated to be related to child development. The 30-item PRS was designed to assess the parent's investment in the role of parenthood. The items ask parents to make both primary and secondary appraisals, relative to the role of being a parent, i.e., salience/commitment and harm/benefit judgments. The 30-item PAI was designed to assess the parenting alliance, which is viewed as a separate dimension from the variable of marital quality. It is theorized that the power of the parenting alliance is capable of withstanding the effects of marital dysfunction and conflict, and, as such, should prove to be a better predictor of child outcomes than measures of either dyadic adjustment or marital satisfaction.

The sample consisted of 186 mothers and 75 fathers with a wide range of SES backgrounds, who had at least one child between 2 and 7 years of age. The Parenting Stress Index (PSI); Parental Attitudes Toward Childrearing (PATC); Preschool Behavior Rating Scale (PBRS); Marital Adjustment Test (MAT); Measures of Social Desirability (MSD); Behavioral Academic Self Esteem; The Identity Pie (TIP); and the California Preschool Social Competence Scale (CPSSCS) were used as criterion validity measures.

No gender differences were found in parents' responses on the Parenting Alliance Inventory. The factor analysis (principle components with varimax rotation) suggested that the scale is essentially unidimensional. Factor number accounted for 55% of the variance, with two small factors accounting for an additional 10%. The alpha reliability for the gender-pooled data was .97, which indicates that the PAI is internally consistent. Gender differences were found in parents' responses to the Parenting Role Scale, with mothers scoring significantly higher ($p<.005$) than fathers. Factor analysis of the mothers' responses (principle components with varimax rotation) resulted in a two-factor, solution which accounted for 28.4 of the shared variance. The alpha reliability for the total scale was .82.

A series of correlational analyses was run to examine the concurrent and predictive validity of the two new measures. The pattern of correlations for both mothers and fathers for the two measures in relation to the concurrent validity criterion were essentially the same. Significant correlations were found in relation to all stress measures and for the Warmth and Conflict dimensions of the PATC. One noticeable difference was that mothers' responses to the PRS were uncorrelated to their marital adjustment while the assessment of their PAI displayed a strong relationship to their marital adjustment. For fathers, their marital adjustment was significantly related to both their PRS and their PAI score. These analyses were then followed by hierarchical regression analyses structured to track the hypothesized relations among selected variables. The model independently examined mother and father data in relation to child competence as noted by the teacher/day care provider. The order of entering the variables was: PRS, PSI, PATC. No significant model was found for the mothers' data. Significant models were found for the fathers' data for all five teacher-rated criterion measures. The amount of variance accounted for ranged from 16% to 24%, with the R change of the PRS accounting for most of the variance. A similar set of regression analyses was run using the PAI scores and selected variables following the same model used above. The order of entry of the variables was PSI, PAI, parenting warmth, to predict teacher/day care providers' rating of the child's social competence. For both mothers and fathers, two significant models were found; however, essentially all of the R change was contributed by the PSI, which suggests that the PSI shares variance with the other two variables. Removing the PSI score and examining the model with PAI entered first, followed by MAT and warm parenting style, resulted in no significant models. In summary, the Parenting Role Scale and the Parenting Alliance Inventory appear to possess adequate statistical characteristics in terms of factor validity and alpha reliability. The Parenting Role Scale's concurrent and construct validity for both genders was supported by its significant negative association to parenting stress and its significant positive correlation with warm parenting style. The Parenting Role Scale displays gender differences with regard to predictive validity, i.e., mothers' scores appear to be less predictive of independent observer ratings of child adjustment than fathers' scores. The Parenting Alliance Inventory's concurrent and construct validity for both parents was demonstrated through its significant negative association with parenting stress and its significant correlation with marital adjustment. For fathers, the presence of a positive parenting alliance was associated with a warm parenting style, while, for mothers, the parenting style appears independent of the quality of the parenting alliance.

Mothers in positive parenting alliances were, however, able to assume more life roles. The Parenting Alliance for fathers demonstrated significant predictive validity in relation to both parent ratings and independent observers' ratings of children's social

competence and overall adjustment. Relatively few and significantly weaker associations to outcome variables were found for mothers. The overall findings suggest that the two measures may be useful in assessing parental variables in relation to child outcome. One note of caution suggested by the findings is that gender difference may be operating in relation to these variables and any users of these measures need to give that likelihood consideration when using these measures.

How to Think, Not What to Think: A Cognitive Approach to Behavior *Myrna B. Shure*

What can a teacher say to a young child who hits another child, or grabs a toy, or cries? What might one do with another child who gets upset or angry too easily when frustrated, or a third child who seems afraid to ask for things and is socially withdrawn?

A program designed to help children who behave like this was developed by the author (Shure, 1990, 2nd ed.), based upon the assumption that thinking is a significant guide to behavior. Instead of telling children, for example, "You can't grab that shovel because Peter had it first," we (Spivack & Shure, 1974), and now others (e.g., Olson et al., 1983), have found that children who can think for themselves, specifically those adept at thinking of alternative solutions to real life problems and able to anticipate consequences to acts are better able to cope with frustration, less impulsive and inhibited, and get along better with their peers.

We judged that in order to maximize age-appropriate interpersonal cognitive problem-solving (ICPS) ability, children must first have mastery of certain language and thinking skills needed to solve peer- and authority-type problems. With the goal being to help children learn how to think, not what to think, the aim established early was to help children develop the habit of considering more than one way to satisfy their needs and resolve difficulties that arise with others.

The format of the training program is a script, composed of daily 20-minute lessons in game form, over a four-month period. Through a variety of sequenced games, discussion, and group interaction techniques, initial lessons focus on listening to and observing others, and on learning that others have thoughts, feelings, and motives in problem situations. After about eight weeks, these prerequisite skills are incorporated into the curriculum to help children consider solutions and consequences to hypothetical interpersonal problems. In addition to the didactic lesson-games, teachers were taught to implement a problem-solving style of communication when real problems would arise -- a way to help children think for themselves so they can associate how they think with what they do, and how they behave. For example, a teacher can ask a child who just grabbed a toy, "What happened when you did that?" (consequential thinking). A child who answered, "He hit me" was then asked, "How did you feel when he hit you?" When this child responded, "Mad," the teacher followed: "Grabbing is one thing you can do. Can you think of something different to do so he won't hit you and you won't be mad?" This kind of "dialoging" helps children to think through solutions and evaluate an act in light of consequences (including their own feelings); also children are much more likely to carry out their own idea than one suggested or demanded by an adult.

As measured by the Preschool Interpersonal Problem Solving Test (PIPS) (Shure, 1990, 2nd ed.), 113 Black inner-city Head Start youngsters improved significantly more than the 106 controls in their ability to think of alternative solutions to real-life problems, and secondarily, in their consequential thinking as measured by the What Happens Next Game (WHNG), (see Shure, 1990, 2nd ed.), and ICPS-trained Ss remained ahead of controls when measured one and two years later. On the Hahnemann PreSchool Behavior Rating Scale (Spivack & Shure, 1974), ICPS-trained children, as compared to controls, decreased in both impulsivity and inhibition, regardless of initial IQ, IQ change, sex, or initial ICPS and behavioral starting points. As the nursery Ss moved into a new, and in many ways different, settings, 25 of 29 Ss (86%) who started off behaviorally adjusted in nursery maintained that good adjustment a year later in kindergarten, significantly more than 18 of 31 (58%) of the comparable controls. These percentages were also similar in first grade -- findings that highlight the preventive impact of ICPS intervention (Shure & Spivack, 1979).

In a separate study, mothers of Head Start 4-year-olds could also become effective training agents (Shure & Spivack, 1978). Youngsters trained at home improved their behavior in school, while such was not the case for controls -- suggesting the generalizability of the impact on children who learn to problem solve. That ICPS intervention reduces and prevents impulsivity and inhibition and effects positive peer relations is especially important given increasing evidence that these are early predictors of later psychopathology and other problems (see review, Parker & Asher, 1987).

If educators and clinicians have assumed that emotional relief could pave the way for clear thinking in a problem situation, the ICPS approach has given support for the reverse idea -- that the ability to think through and solve problems might pave the way for emotional relief and behavioral adjustment. It is an intervention that actively engages a child to learn ICPS skills and how to use them. The program is easy to learn, feasible to implement, and is mass-targeted for children in school (Shure & Spivack, 1988). With the letters ICPS translated for children as I Can Problem Solve, completely revised program scripts are presently being implemented into Head Start and kindergarten classes for longer-term evaluation. While a mother may be in a unique position to affect her child's thinking skills and behavior, the data suggest that the teacher can clearly play a prominent role in affecting a child's behavior when she adopts the problem-solving approach to adjustment.

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Examining Social Competence Needed for Success in Kindergarten *Barbara Foulks*

The question, "What abilities, skills, or knowledge does the child need that are required for social competence in the kindergarten classroom?" raises several major issues that are the focal point of this paper. There are varying definitions of social competence. Some are oriented toward social and interpersonal skills, some on appropriate classroom behaviors, and others are context/adaptation-based. According to some researchers, social competence is synonymous with social development goals. These goals consist of self-understanding, independence, assertiveness, social sensitivity, friendship-making skills, and social problem-solving skills. Social competence is defined as prosocial and interpersonal skills. Other researchers claim social competence is context-related. If social competence is the interaction of the individual and the environment, it is context-related and situation specific. It requires knowing what context one is in and when contexts change, as well as knowing what behavior is considered appropriate in each of those contexts. The capacity for monitoring contexts would therefore be an essential feature of social competence.

Social competence is also defined as adaptation to one's school and home environments. Within every social setting there are parameters for appropriate or competent behavior. This may vary greatly, depending on the social setting. According to this paradigm, social competence is influenced by the expectations of the significant others and the situations in which one must interact with others. Besides assessing social competence of the child, the situation should also be assessed. In what situations and interactions is the child socially competent? In what situations and interactions is the child not socially competent?

Another conceptualization of social competence emphasizes the use of functional skills required for success in the school environment. Social competence in kindergarten is defined and measured in relation to the skills directly associated with successful school performance. The research conducted by Foulks (1989) indicated that kindergarten teachers consider several items as critical for social competence in kindergarten. Her research found the social competence critical prerequisite skills believed by teachers to be necessary for participation in school learning activities and those that distinguish between school success and failure. These social competence skills enable the child to take advantage of the educational opportunities offered in the kindergarten classroom. Education of children in preschool compensatory, special education, or regular programs should emphasize those skills most crucial to preparing them for success in the normal or mainstreamed kindergarten classroom. In general, kindergarten teachers expect that children will be able to function within a cooperative learning environment in which the child works both independently and in small and large groups.

The question of social competence for kindergarten depends in part on which type of program the child enters, the child's functioning in a group situation, the curriculum's degree of structure, the behavior required by the teacher, and the instructional program. There is much variance in school and individual philosophies, goals, and practices. There is no clear definition, criteria, or listing of skills required for social competence in kindergarten.

Current early childhood education emphasis is on developmentally appropriate practices are based on age and individually appropriate expectations and learning activities, In developmentally appropriate practice, the educational system adjusts to the developmental needs and levels of the children it serves. Although not stated as such, many of the integrated components of developmentally appropriate practice relate to the development of social competence in young children. What are the social competence skills for a developmentally appropriate kindergarten? From the research one can see that developmental-appropriate practice assumes certain skills, attitudes, and values are important components of child development for social competence. Kindergarten teachers who have a developmentally appropriate kindergarten guide children towards social competence. It is not assumed that children will be socially competent upon entering kindergarten.

Social competence appears to be grounded in mainstream American upper-middle-class culture and values. Does it also reflect minority culture values? There are many minority cultural and ethnic groups in the United States. In a multicultural society as we have, there are a variety of context-appropriate behaviors, attitudes, learning styles, and skills. Children do not grow and develop

in isolation, but in the context of family, peers, school, and other institutions in the community and society. There are substantial cultural influences on adaptive behavior and appropriate social skills for a particular context. Sometimes a child is "socially competent" in one setting but not in another. In planning for ecological congruence, it is equally important to assess the teacher's and the school system's expectations for social competence, and determine how these expectations relate to expectations for social competence in the child's home environment. It is equally important to assess the child's degree of social competence for the various particular settings.

If Head Start assists the child in developing social competence, which social competence skills should the child learn? If the kindergarten is not developmentally appropriate, do we teach the child age-inappropriate behaviors, so the child can "be successful" in kindergarten? Expectations of social competence from a multicultural context and pluralistic perspective need to be examined. The fact that the research literature on social competence does not reflect the issue of cultural bias in determining factors of social competence for kindergarten success is in itself indicative of social bias.

Determining the skills that promote successful functioning and social competence depends upon the ecological setting and social values being fostered. It is clear from the varied and numerous definitions that social competence has acquired in the literature that a great deal of confusion prevails as to precisely what is meant by the concept. Despite the wide usage of the term "social competence" and the vast amount of research the concept has generated, a consensus still has not been reached. Among the problems are: a) establishing a universally agreed-upon definition of the concept; b) developing measures to assess social competence skills; and c) effectively planning curriculum for the young child at risk for school failure. Acceptable solutions to these issues need to be developed with an appreciation for the larger educational- and social-ecological context of which they are a part. Educational goals and programs cannot be usefully viewed apart from the larger political, social, and economic contexts in which they occur.

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Sociomoral Atmosphere and Sociomoral Development: Implications for Head Start Practice

Rheta DeVries, Halcyon Reese-Learned, Betty Zan

The purpose of the study was to explore the relationship between sociomoral classroom atmosphere and children's sociomoral development. Participants were 56 children (mainly Black) from low-income families and their kindergarten teachers in three inner-city schools. Program groups (DISTAR [DI], constructivist [CON], and eclectic [ECL]) did not differ in mean age, socioeconomic index, ethnicity, family income, mothers' education, or mothers' reported childrearing practices. DI represents the cultural-transmission world view. Programmed lessons direct children in individual and group recitation and fast-paced drills. Contingent reinforcement is used to control children's behavior. CON represents the cognitive-developmental world view. The democratic classroom atmosphere fosters active reasoning. The teacher emphasizes helping children with interpersonal conflict and its resolution. ECL has some characteristics of both CON and DI; it is included to illuminate comparisons.

Sociomoral atmosphere and sociomoral development were operationalized in terms of Robert Selman's levels of interpersonal understanding (IU) that reflect levels of increasing perspective-taking. IU has two aspects: negotiation strategies (NS) and shared experiences (SE). Level 0 NS is the impulsive exercise of, or giving in to, raw will: others are objects. Level 1 is the unilateral expression of the self's needs or wishes: Others are to control or be controlled by. Level 2 is the consideration of the other's needs or wishes through an effort to coordinate these with one's own: others are to persuade or be persuaded by. Level 3 is a striving for mutual understanding: others are to understand and be understood by. Levels of SE are parallel.

The general hypothesis is that enacted IU of children from the three groups will reflect the sociomoral atmospheres in the classrooms. The higher the level of IU enacted by the teacher, the higher the level of IU enacted by children will be. Sociomoral atmosphere was assessed through coding 20,000 IU expressions from videotapes of the teachers for two class days. Sociomoral development of children was assessed by coding 6,000 expressions by 28 child pairs in a game situation.

The DI teacher's interactions with children are predominantly NS (almost 95% of total interactions) and reflect authoritarian regulation of children's behavior. The CON teacher's interactions are more balanced between NS and SE. The CON teacher has fewer levels 0 and 1 and more levels 2 and 3, and a wider range of different types of NS and SE. The ECL teacher's NS and SE fall midway between DI and CON teachers. The hypothesis of a leading edge in development of enacted IU for the CON group is supported. Most NS and SE for all groups are level 1, but groups differ significantly, with the CON group using more level 2 NS and SE and the DI group using more level 0 SE.

In 292 conflicts during the game, the CON group is more interpersonally active, resolves more conflicts, and enacts the highest percentage level 2 and the lowest percentage level 0 NS. CON is the only group having no level 0 SE and any level 2 SE during conflict. Children in DI experience school as a place where the teacher consistently acts to control them unilaterally according to her desires and expresses little consideration for their feelings or ideas. This leaves few opportunities for shared experiences or for construction of higher level negotiation strategies.

The sociomoral atmosphere of the CON classroom is characterized by reciprocity and intimacy. Children enjoy a great deal of SE with the teacher who affirms them and engages in friendly, affectionate conversation and play. She expresses respect for children, minimizes unilateral control, expresses consideration for children's feelings and ideas, and upholds ideals of fairness, friendship, and cooperation. The constructivist atmosphere clearly favors a leading edge of children's development at level 2. The DI atmosphere is associated with a trailing edge of development at level 0. This pattern of results is also found when conflict segments alone are considered. CON children consistently are more interpersonally active, employ a larger repertoire of different NS, and enjoy a greater variety of SE.

While results do not lead to generalizations about all classrooms reflecting cultural-transmission and cognitive-developmental paradigms, they do suggest that when children experience a unilateral environment in which social interaction is discouraged, children's development of IU is limited. When children experience a cooperative environment characterized by feelings of community and democratic decision making, children develop greater capacities for intimacy and negotiations with others. Since by third grade no differences are found among the three groups on school achievement tests, we suggest that temporary benefits of authoritarian programs of direct instruction not only cannot be justified but must be criticized because of possible damage to children's sociomoral development.

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COLLABORATIONS

A Head Start-University Partnership to Study and Improve Programs *Joseph J. Sparling, Donna M. Bryant*

In order to better understand and improve intervention programs, two local Head Start agencies, Wake County Opportunities Inc. and the Chapel Hill Training-Outreach Project, have begun a collaboration with researchers at the Frank Porter Graham Child Development Center of the University of North Carolina at Chapel Hill. The purpose of this partnership is to generate new knowledge that will guide future improvement of local programs and, when combined with other research, provide an information base to guide national decisions on Head Start and early childhood education. This three-year program of studies began in the fall of 1990.

The research will link three kinds of variables: 1) entry characteristics of Head Start children and their families, 2) specific program elements, and 3) child and family outcomes. The program variables are of central interest, since Head Start by definition is a program of intervention. The main thrust of the research is to learn how program variables interact with the other kinds of variables. This knowledge can help Head Start and other early childhood programs to more effectively serve a variety of types of children and families.

Guided by previously discovered relationships between family and program (found in other kinds of programs), we will collect an integrated set of family, program, and outcome data from 26 Head Start classrooms. From these data we will generate a number of specific hypotheses regarding the likely effects of program variables. The accomplishment of this task will set the stage and provide guidance for an efficient, experimental demonstration of cause and effect between program and child and family outcomes, and the demonstration of relative payoffs of various program configurations and program variations. Even though something is known

about many individual relationships, we feel there is a need for a coherent, ecological picture of the entire set of interrelationships (or, rather, of enough of it to infer the whole). Three linked studies will be conducted with our community Head Start partners:

Study 1: First, a coordinated and comprehensive effort will be undertaken to simultaneously interrelate a substantial number of entry characteristics, program elements, and family and child outcome variables that have been studied previously. From this integrated, or ecological, set of correlational findings, a limited number of hypotheses will be stated regarding the likely effects of program variables. These hypotheses will later be tested experimentally.

Study 2: Before moving to experimental research, we will feed back the results of the descriptive study to the collaborating Head Start professionals, and, with them, decide on program elements to experimentally vary. Then, with the Head Start Directors, we will jointly provide the staff training necessary to effect a change in these program elements and will verify the change through documentary research using criterion-referenced measures. Only through this means can the program variation needed in the final study be assured.

Study 3: In the third study of the project, a discrete, experimental manipulation of a small set of program variables will be undertaken to confirm or deny the hypotheses proposed as a result of Study 1. Causal inferences may be made from this experimental study, which, with future replications, would be considered reliable findings.

In conducting these three studies, we hope to demonstrate a useful and responsible sequence of practitioner-university partnership activities that begins with descriptive research, continues with feedback and training, and concludes with experimentation. We hope to influence future Head Start practice by experimentally demonstrating that incremental improvements in certain classroom program elements can have a measurable and significant effect on child outcomes.

San Juan College *C. David Beers*

In the fall of 1987, the Early Childhood Education Department of San Juan College, located in Farmington, New Mexico, began work on a Child Development Associate (CDA) Field Training Project. Supported by grants awarded to the college by the Head Start Bureau, United States Department of Health and Human Services, the project was designed to deliver services to rural Native American Head Start centers located in the Navajo, Jicarilla Apache, and Ute Reservations, and to document lessons learned as part of the training process.

Since 1975, when the national CDA Program was established, various sponsors have attempted to provide CDA training to Native American preschool educators located throughout the region. During the period 1975-1987 these efforts resulted in only about 15 Native Americans receiving their CDA credentials -- a rate of about one per year. Since the beginning of the San Juan College CDA Field Training Project in 1987, we have successfully credentialed about 80 candidates -- a rate of about 20 per year -- all of whom are Native Americans working in isolated, rural, culturally different Head Start programs.

The San Juan College approach to CDA training grows out of a fundamental philosophical premise: we approach each CDA candidate with respect. We respect them as individuals, as members of a cultural group different from mainstream Anglo-America, and as educators. This means that we encourage CDA candidates to draw on their own autobiographies -- to put on the table their own strengths and to construct from these strengths the knowledge and skills that will enable them to obtain a CDA Credential. We invite Native American Head Start teachers to join us as colleagues as well as students. As colleagues, we feel that we can work together as peers toward a goal that we both are interested in: obtaining a CDA Credential.

We understand our work as CDA advisors to be fundamentally human work. We are concerned with establishing trust, cooperation, and harmony -- a mutually supportive working relationship between ourselves and the CDA candidates. This approach has led us to strongly emphasize in our training the oral and written storytelling traditions of Native Americans, to help them understand how to document their own learning during the CDA process, and to make this documentation the basis of successful portfolio writing -- an important part of CDA assessment.

The process of developing a portfolio provides the candidate with the opportunity to reflect upon her own experience as a Head Start teacher, to identify her own strengths and weaknesses compared to national standards (which are encoded in CDA functional areas), to take steps to correct the weaknesses and build upon the strengths, and to document for herself and others the lessons she has learned from this self-reflective process. The candidate becomes an observer of her own behavior and a teller of her own story.

Our approach to portfolio writing represents an effort to parallel with adult learners the principles of active experiential learning that are recommended by the National Association for the Education of Young Children (NAEYC) in its Developmentally Appropriate Practices for 4-year-olds in Head Start classrooms. As advisors working with the CDA process, we try to model the kinds of respectful behaviors that we hope the candidates will exhibit with the Head Start children with whom they work. We have tried to establish a continuity of mission and a continuity of practice between the way adults work with each other in CDA advising and the way adults work with children in Native American Head Start classrooms. In short, we have tried to align the CDA training process at San Juan College with the Head Start process itself. We believe that our CDA training is well designed, partly because the Head Start Program itself is well designed, providing effective support so that all its members -- adults and children -- can thrive.

Our experience indicates that Head Start is good not only for children, but also for adults who teach those children, and for the adults who teach the teachers. In this sense, the Head Start design and the design of the CDA process are superb models upon

which to base our work. Given our experience, we would say that not only is this a good way to conduct the education enterprise, it is a good way to conduct life.

San Juan College has been working cooperatively with Native American educators to document the lessons learned about what works in early childhood programs. We build video and print materials from the excellent descriptions produced by CDA candidates in creating "portfolios" of their own work in classrooms. Examples of the documentation we have produced are briefly described here: 1) Well-Told Stories, a 22-minute videotape by C. David Beers and Richard Ott, shot on location in Native American classrooms. This video features as the on-camera narrator a Navajo Head Start teacher, Jessie Bitsui, who speaks informally about CDA training as she works on her loom weaving. We cut away from her narration periodically to show Native American landscapes -- children and adults in unrehearsed, naturalistic settings that illustrate Jessie's comments. The target audience could be the general public as well as those more specifically interested in Head Start and CDA training. 2) Stories That Teach: Lessons Learned From Native American Head Start Classrooms About CDA Training, a 50-page manual of words and photographs designed to accompany the video Well-Told Stories. The target audience is CDA candidates, advisors, and community college faculty. 3) Scenes for Classroom Observations, a 19-minute videotape based on footage from Well-Told Stories that shows Native American children and adults in action in preschool classrooms. We find this video useful for training with CDA candidates, advisors, and early childhood education faculty. and 4) "Storytelling and Native American CDA's," the cover article for Children Today, March-April 1989, Washington, D.C., by C. David Beers and Judith Loretto.

HIPPY and Head Start: The Northeast Arkansas Development Council *Jo Shrable*

Currently, five Head Start centers have chosen to incorporate the Home Instruction Program for Preschool Youngsters (HIPPY) into their overall program. This showcase highlights all five, showing how each has found the "fit" between Head Start and HIPPY. The five centers are: Northeast Arkansas Development Council, Batesville, AR; Child Development Inc., Russelville, AR; Southwest Arkansas Development Council, Hope, AR; South Central Arkansas Community Action Agency, El Dorado, AR; Louisville Public Schools, Louisville, KY.

HIPPY is a home-based, early intervention program that empowers parents to take active roles as their children's first educators. Paraprofessionals, themselves parents in the program, bring weekly activity packets to the homes of the participating parents. These activities are role played with parents so that they feel completely comfortable when they, in turn, work with their children. The program staff maintain weekly contact with all participating parents, alternating between home visits and group meetings. At the group meetings, the activities are also role played, and there is an additional enrichment component.

The Head Start centers presented in this showcase are all implementing the HIPPY model as described above. Interestingly, there is still considerable variation. 1) The integration of HIPPY into the Head Start guidelines: some centers use HIPPY to reach those families who are still on the waiting list for Head Start, others use HIPPY as the educational curriculum for the home-based program, and one implements HIPPY as a parent-involvement component, in addition to the center-based program. 2) Four are community-based programs, one is school-based. 3) four are rural, one is urban. 4) HIPPY has been in place in these centers anywhere from three years to just a few months. 5) They have each accessed various additional funding resources. In addition to the basic funding from Head Start, other funding sources that have been used for the HIPPY component include JTPA, Even Start, and private grants.

This showcase brings together representatives from these Head Start centers to highlight the variation found as each one is implementing the HIPPY program, and provides an opportunity for others to see how HIPPY, or any other program, can be incorporated within the existing Head Start guidelines.

CULTURAL DIFFERENCES

A Preliminary Description of Puerto Rican Mothers in Head Start Programs *Maribel Vargas*

Eighty Puerto Rican mother-child dyads participated in a study conducted to obtain descriptive information about this Hispanic subgroup and assess maternal teaching behavior during a structured situation. Data were collected on childrearing and educational attitudes and beliefs, the amounts and sources of social support received, parenting stress, and the maternal perception of child's temperament. Mothers who were born in Puerto Rico or whose parents were born on the island were recruited for participation from Head Start programs in the Bronx in New York City. In Puerto Rico, mothers who were born and raised on the island were recruited in Head Start programs in Bayamon, a large metropolitan town in Puerto Rico. Forty mother-child dyads from each geographical area were included in the sample. In addition, an equal number of boys and girls participated in the study. None of the island mothers had experienced a period of migration to the mainland that was longer than six months.

Seventeen of the New York mothers were born in Puerto Rico and later migrated to the mainland; the remainder were born on the mainland. The mean age for the mothers recruited for the study was 28.2 years. In both settings, the median number of years of education for the mothers was 12 years. Forty-six percent of the total number of mothers included in the sample were married. Forty-eight percent reported that there was no spouse present, and an additional 6% did not indicate their marital status. An income

of $6,000 or less was reported by 30 of the mothers, while 22 indicated that their income was over $6,000 but less than $15,000. Only six of the mothers reported income above $15,000. Information on their financial status was not reported by 22 of the mothers participating in the study. The number of children for the mothers in the sample ranged between one and six, with a mean of 2.6 children. The mean age for the children in the study was 51.7 months for those recruited in the Bronx and 59.1 months for those who participated in Bayamon. Head Start children participating in the study on the mainland were significantly younger than those children recruited from Head Start programs on the island.

The mothers were administered several questionnaires and were subsequently observed interacting with their children in a structured situation during a visit to the Head Start facility. Results for the total sample on the childrearing and parenting values measure (Parental Modernity Scale; Schaefer & Edgerton, 1985) indicated that the mothers obtained scores in the middle range of the scale. The previous finding challenges the stereotypical assumption of authoritarian parenting styles of Puerto Rican and Hispanic parents, which would have been indicated by a low mean score on this instrument. Scores on the stress measure, the Parenting Stress Index (Abidin, 1983), indicated that these mothers had stress levels above the mean when compared to the original norming sample but below those reported for the Hispanic norming sample (Solis, 1990). Social support scores for Puerto Rican mothers ($\bar{x}$= 83.4, SD= 30.4) were lower than those obtained by Barrera, Sandler, and Ramsay (1981), using the Inventory of Socially Supportive Behaviors (ISSB) with a college sample ($\bar{x}$= 88, SD= 21.2). The findings obtained in this investigation using the ISSB seem to contradict the commonly held assumption that Puerto Ricans typically have strong social support networks. A possible explanation for this finding may be that the help received by the mothers from relatives or significant others is not strictly thought of by them as social support, but more as part of the reciprocal interactions that occur within family networks. For those mothers who indicated sources of support, the husband or partner was the person most frequently mentioned, followed by the participant's mother. The administration of the Revised Dimensions of Temperament Survey (Windle & Lerner, 1986) revealed scores distributed around the mean indicating that these children were perceived by the mothers as not being particularly difficult.

Maternal teaching behaviors included in the Maternal Teaching Observation Technique (Laosa, 1978) were examined for frequency of occurrence. Mean rate-per-minute use of the techniques were computed, and the findings indicated that directives and visual cues were the teaching modalities most frequently employed by mothers. Modeling was another teaching behavior commonly used by the mothers, but to a lesser extent. In addition, comparisons between the New York City and Puerto Rico groups showed that mainland mothers used inquiry, praise, and positive physical interventions to a much greater extent than island mothers.

These results provide initial data on a population that is not typically investigated, but as a group is commonly served by Head Start in many low-income communities throughout New York City and Puerto Rico. The findings from this preliminary study seem to indicate that assumptions made regarding the attitudes and behaviors of cultural subgroups by professionals and policy makers do not always hold up in real life settings. There is a need for further investigation of the cultural subgroups being served by Head Start, which could lead to the modification of program goals and methodologies to meet the demands of those families being served during this decade.

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Family and Childrearing Values and Perspectives Among Vietnamese Refugee Families of Head Start Children *Daniel R. Scheinfeld*

The 30-minute videotape is entitled "Tet: Introducing the Vietnamese New Year to the Preschool Classroom." This instructional video for teachers of young children and the accompanying materials constitute one of the three units of a Head Start cultural module entitled "Enhancing the Relationship Between Vietnamese Families and Head Start Personnel." The purpose of the module, funded through a Head Start grant, is two-fold: first to provide preschool teachers who serve Vietnamese refugee children with an understanding of the family and childrearing value of the Vietnamese families they serve; and second to provide ways in which a preschool teacher can, with the collaboration of Vietnamese parents, introduce values and observances of Vietnamese family life into the classroom. The materials presented here are intended to help serve both of these purposes.

The video begins with a portrayal of how Tet is observed among a Vietnamese refugee family in Chicago. It then briefly documents the community Tet celebration in Chicago and moves on to show how many facets of Tet can be incorporated into the classroom over an extended period of time. Through its observances, stories, and emphasis on the renewal of relationships, of

nature, and of self, the Tet celebration communicates and affirms the values of family harmony, enjoyment, nurturance, forgiveness, respect for elders, humility, non-greediness, industriousness, achievement, beauty, and closeness to nature.

The materials accompanying the videotape include a teacher's manual, a Tet story book for children, and a set of the 12 animals that constitute the Vietnamese zodiac. The manual, in its final version, will include an appendix on the similarities and differences between the Vietnamese and Chinese New Year observances and meanings. Two other instructional units for teachers in this module are currently in preparation. One relates to Vietnamese family and childrearing values. The other covers the Moon Festival (also known as the Children's Festival or Mid-Autumn Festival). Each of these two additional units, like the one presented here today, will include a videotape and accompanying printed materials.

The cultural module as a whole is informed by interviews with 20 Vietnamese refugee families, the contributions of a wide range of Vietnamese community advisors, and an extensive classroom collaboration with Head Start teachers and parents. It is constructed from the conviction that the meaningful and successful incorporation of cultural practices into the classroom must be informed by the living practices of the families involved, the direct participation of parents, and a broadly based teacher understanding of the values and beliefs involved in those practices. Only then can the cultural life of participating families be introduced with integrity.

A Vietnamese community advisor to the project once stated, "If you understand the Tet, you understand the Vietnamese family." We believe this to be true, and we hope that the materials in this module will help the teacher take a significant step in the direction of that understanding.

Heritage and Pride the Children's Way *Ellen O'Kelly, Carman C. Blake*

As we learn more about others, we begin to learn more about ourselves. That embodies the spirit of the City of Phoenix Human Resources Cultural Enrichment Program. For the past two years they have been involved in developing a bilingual/multicultural curriculum model designed to promote language development for all children. The Head Start Cultural Enrichment Project, *El Mundo de los Ninos* (The Children's World), is a complete child-development program in which the children's language and culture are utilized and respected in activities that develop learning skills and everyday functioning. The model has further strengthened the joint relationship between the Head Start child, family, and teacher by educating children to value culture and develop a strong positive self-image, enhancing families' skills that help to reinforce their child's learning experience, and providing teachers with new ways of improving their instructional methodologies.

The developmentally appropriate classroom activities center around the world of the child, the family, and the community, not as a "tourist" approach, but rather as a philosophy whose goal is to meet the needs of the multi-cultural, multi-lingual child. It is not an arbitrary process. It is not pre-established. It is not stereotypical. It is, however, an educational metamorphosis. Integrating the culture into the classroom, using it as a teaching tool, builds a variety of skills in children, and building self-esteem through cultural awareness is an identified goal of the Phoenix Head Start multi-cultural grant. It is a model program that utilizes parent involvement in determining each child's home culture. This process is unique. Cultural themes and activities were developed by the parents and are reflected in the atmosphere of the classroom environment, which incorporates books, pinatas, Akuba dolls, and many other cultural items. Parental participation validates the philosophy and the process and makes the Head Start experience relevant and appropriate.

The program is further unique in that it has assimilated the High/Scope curriculum of child-initiated, active key-experience learning activities through multi-cultural experiences. It provides a framework for the teacher to provide and be accountable for the learning that is occurring. The multi-cultural grant and High/Scope have combined to make for an energetic, quality program. It is an added bonus that should be noted.

The implementation of the program has provided opportunities for in-service training by and for teachers and parents. Ownership and pride for parents and staff has developed during the process and can be measured through the skills, knowledge, attitudes, and behaviors demonstrated by all the participants.

Language is perhaps one of the most important tools for learning. It is, therefore, the area that must be developed to the utmost. The Phoenix Head Start grant recognized the multi-lingual needs of their children and worked with the Arizona State University Bilingual Department in developing a vocabulary assessment instrument to begin measuring vocabulary enrichment resulting from the multi-cultural program. Preliminary data demonstrate that increased comprehension and expansion of the children's vocabulary has occurred.

Which comes first -- the chicken or the egg? The same can be asked about learning and self-esteem. One cannot happen without the other. By promoting an acceptance of multi-cultural, multi-lingual differences, the children develop a feeling of self-confidence and control in their lives. These feelings contribute to a positive view of self and the world. Teachers report that their children are demonstrating an increased awareness of self, family, and community through the grant themes, activities, and key experiences. In the classroom, this translates into children who are confident, competent learners. This translates into human beings who have choices and can contribute to and be successful in the world.

The grant has provided for a stimulating model for processing multi-cultural education. Phoenix has developed Hispanic, Black, and Southwestern references for teachers to draw upon. The Native American unit is in progress and will be added as it develops. High/Scope has been integrated into the classrooms and demonstrates the appropriateness of the project. Come to the Fiesta, bring your Akuaba doll, and feast on jerky, beans, and banana fritters. Phoenix has it all! A unique feature of the project has

been *Sobre Mesa* (Table Talk), a monthly forum that provides both teachers and parents an opportunity to share their rich cultural diversity for later use as a teaching experience in the classroom.

Since 1988, the City's Human Resources Head Start Program has conducted several workshops at national, regional, state, and local conferences on the bilingual/multi-cultural curriculum. The feedback that we have received has all been excellent. The program has also provided requested on-site training to Head Start grantees and delegate agencies. The City of Phoenix is extremely proud of the training package of materials that have been developed and is certain that the materials will be helpful in replicating this project in other areas.

PARENT PARTICIPATION

A Family-Systems Model for Parent Enrichment in Head Start *R.K. Leik, M.A. Chalkley, G.J. Duane*

(See presentation, Symposium 408, page 471)

READING/MATH

The Effects of Shared Reading Experiences on Head Start Children's Concepts About Print and Story Structure *Jean Ann Box, Milly Cowles, Jerry Aldridge*

Little research has been conducted that actually addressed the value (or lack) of specific curriculum strategies that can be used with young children from low socioeconomic backgrounds in the areas of "concepts about print" and "story structure." Both have support as being positively related to children's learning to read (Morgan, 1987; Johns, 1982; Clay, 1972, 1975; Kontas & Huba, 1983), and are being discussed more and more in the whole-language literature. The major purpose of the work was to determine whether specific teaching techniques that used shared reading activities with predictable books would increase children's knowledge of concepts about print and story structure.

A randomly assigned three-group, pre- and post-test experimental design was used. The experimental group participated in shared reading activities with their regular teachers, who were trained methodically for the curriculum activity and monitored throughout the period of research. Special movement and physical developmental activities were used by teachers working in the placebo groups. They, too, were specially trained and monitored. The control group teachers continued with the regular Head Start curriculum that emphasized units of study and learning centers, but did not and had not included the items under study.

The subjects were 75 4-year-old children enrolled in 15 Head Start classrooms (72 subjects completed the timespan of the study). The teachers were assigned randomly to participate as either experimental, placebo, or control group facilitators. Five subjects were selected randomly from the 15 classrooms; all were from low socioeconomic backgrounds. The three major phases of the research included 1) pre-testing, 2) treatment, and 3) post-testing.

At pre-test, each subject was given the Stones, which was designed to measure concepts that children have about print. The Early School Inventory -- Preliteracy, which also taps knowledge about print and another section in it that determines understanding of story structure, were administered (Among examiners, reliability = +.99). Prior to treatment, group training was conducted for experimental and placebo teachers. Control group teachers did not require specific instruction. Teachers were chosen as the instructors to alleviate researcher bias, and if the treatment were shown to be effective, teachers would ultimately be the implementors of the research findings. After the pre-testing, experimental and placebo groups were "taught" in their own classrooms for 15 to 20 minutes each day for eight weeks (40 sessions), and the sessions were monitored to insure that the goals of the study were being followed.

At post-test, subjects in the experimental, control, and placebo groups again were individually examined through the use of the same instruments that were given during the pre-testing phase.

All scores were submitted to a one-way analysis of covariance. When F-ratios were statistically significant at or beyond the .05 level of significance, they were subjected to the Scheffe Multiple Comparison Procedure and the Eta square test of practical significance. Analysis of the data showed significant differences among the means of the three groups ($F = 24.64$, $p < .001$) on the Stones (Concepts about Print). The Scheffe showed a difference between the experimental and control groups and between the experimental and placebo groups. In both cases, the mean for the experimental group was significantly higher than for the other two groups (Ex. $\bar{X} = 5.31$, Con. $\bar{X} = 2.49$, and Plac. $\bar{X} = 2.10$). On the Early School Inventory section on Concepts about Print, the F of 6.96 also was statistically significant beyond the .002 level. The Scheffe revealed again that the experimental group differed from the other two groups with the highest mean (Ex. $\bar{X} = 15.20$, Con. $\bar{X} = 10.70$, and Plac. $\bar{X} = 10.76$). The F-ratio for the results of the scores on the Story Structure section was .529. To be significant, it would have to be .591; therefore, the Scheffe was not run, and it was judged that the means of 4.37 (Ex. group), 3.26 (Con. group), and 4.01 (Plac. group) were not significantly different.

Shared reading activities made a difference in a relatively short time period with Head Start children's knowledge about print. Experimental teachers reported at the end of the study that the training was most beneficial for them and the children. Since knowledge of print concepts is related to successful readers, it is recommended that more research be conducted and more pilot programs be instituted that use the approaches tried in this research. There is only room for speculation as to why the subjects' understanding of story structure did not increase. There is reason to believe that the complexities associated with even predictable books and simple plots are beyond 4-year-old children's developmental levels. If so, then persons who work daily with that age range would be wise not to expect knowledge of story structure so soon. More research is needed.

Shared Picture Book Reading in the Home: A Language Enrichment Project *Barbara D. DeBaryshe, Graciela DeAngelis, Alby Johnson, Karen Maas, Janeen P. Witty, Holly Holt, Paula Harvell*

There is a considerable amount of research to suggest that oral language skills are one of the most important building blocks for early school success (e.g., Edmiaston, 1984; Feagans & Farran, 1982; Loban, 1963). Joint adult-child story reading sessions provide a uniquely rich and motivating setting for promoting the acquisition of language and preliteracy skills (e.g., Ninio, 1983; Pelligrini et al., 1990; Share et al., 1983; Wells, 1985; Whitehurst et al., 1988). If we are going to design intervention programs around storybook reading activities, then it becomes necessary to understand the mechanisms through which shared book reading brings about positive change.

The purpose of our program was to increase both the frequency and the quality of parent-child home reading sessions. What do we mean by a high-quality reading session? Our basic belief is that children should not passively attend to a story that is read to them. A more optimal reading session would involve active exchanges between the parent and child in the parent striking a balance between providing information to the child on the one hand, and eliciting information from the child, on the other.

The subjects in our study were 2- to 4-year-old children and their parents. We had 64 children start the program; 50 completed it. Most of the children are enrolled in Head Start; a small number were enrolled in a child care center located in a public housing project. The sample consisted predominantly of African-American, single-parent families headed by a woman in her late 20's. The program was seven weeks long including one week of baseline and six weeks of intervention. Parents received two training sessions spaced three weeks apart. In the lessons, parents were taught a repertoire of increasingly challenging teaching strategies to use when reading aloud. Parents were taught to select strategies that were appropriate for their child's age and current knowledge. As children's skills increased, parents switched to more challenging strategies. These target strategies fell into two different groups: strategies for prompting or questioning their child, and strategies for providing feedback on their child's conversation.

Eleven participating classrooms were randomly assigned to one of three conditions. Training families participated in two parent training sessions and read at home on a daily basis for seven weeks. Reading parents also read at home for seven weeks, but did not receive any parent training. Control parents participated only in the pre- and post-test assessments.

All families participated in a pre-test assessment. This included two questionnaires and a standardized language test battery. During the seven weeks of intervention, the training and read-only groups made weekly audiotapes of their home reading sessions. These tapes are coded for categories of both maternal and child speech. At the end of the intervention, children were post-tested on alternate forms of the language tests used in the pre-test battery.

Contrary to our initial expectations, these children were read to on a regular basis. However, our Head Start parents did provide their children with fewer literacy experiences than we found in middle-class families in our other studies. For example, our Head Start parents read less than half as often as the more advantaged parents (4 vs. 10 sessions per week), owned many fewer children's books (25 vs. 94 books), and started to read to their children at a much later age (16 vs. 6 months). This suggests that our Head Start children have a history of less frequent exposure to shared book reading.

In a multiple regression analyses, four variables were used to predict parent's report of their children's interest in and enjoyment of books. The predictors were parent education; parent enjoyment of reading; parent efficacy beliefs, and home read-aloud practices (e.g., times read per week, age began, library trips per month, etc.). These variables accounted for 55% of the variance in children's reading enjoyment. In a second regression, these same four variables plus children's reading enjoyment predicted 24% of the variance in a composite variable formed from the three language pre-test scores. Thus, the parents' beliefs and home reading practices appear to have a significant impact on children's pro-literacy attitudes and developing language skills.

Does the program have an effect on children's language test scores? At this point the answer appears to be no, it did not. On all three tests, children in all the groups showed significant or marginally significant gains. For this, I think we can credit the overall quality of our participating Head Start program. There was no indication, however, that the parent training or reading group children showed systematically larger gains than the control children.

Is the program a failure? We urge you not to make this conclusion prematurely. First, the number of successful completers in the training group is still quite low, and we are planning to add more families in the fall. Second, within the treatment group, the degree of individual improvement is related to parental compliance with the program. Controlling for pre-test scores, the frequency of reading during the study is correlated .6 with PPVT scores and .4 with One-Word scores. Thus, training parents who read more often had children who made larger gains. Third, we have not yet looked at the audiotape data. We may find that the program has little effect on test scores, but has a large impact on the complexity and maturity of children's in-session conversation skills.

Finally, the issue of subject attrition must be addressed. Although we had expected some parents not to complete the program, the drop-out rates were distressingly high, and were limited almost exclusively to training-group parents. The families who dropped out from the program were younger (both mothers and children), lower income, and reported their children to be less interested in reading together. Thus, the program appears to be less appealing to parents who have not managed already to instill an interest in books in their children. This suggests that we need to give more thought in the future to retaining all families, and understanding why some children have not developed an enjoyment of what for many families is their most pleasant shared activity.

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Language and Literacy in Early Experiences With Books *Beverly A. Goldfield*

Numerous studies suggest that reading to preschool children at home predicts later reading achievement (see, for example, Cousert, 1978; Durkin, 1966; Milner, 1951). Moreover, there is evidence that early book reading experiences have even broader consequences, influencing children's ability to understand the more abstract linguistic and cognitive demands of school (Wells, 1986). Consider these characteristics of a story: stories are abstract representations of the world. Stories describe entities and events that are removed from personal experience and ordinary communicative contexts. In stories and books, language is used to talk about the world, rather than to accomplish some specific communicative goal in the world.

By looking at books and listening to stories, children learn to interpret linguistic messages that are independent of their experience. Even picture books looked at with toddlers convey meanings that are not part of the child's immediate environment and concerns. This more abstract level of language use is implicit in almost all areas of formal education. In school, language is primarily a tool for acquiring and displaying information about the world at large. How do parents introduce children to the kinds of abstract representations of the world that are implicit in books? An understanding of this process is crucial if we are to adequately address the readiness skills of children who have had little or no at-home experience with books. For many children, programs such as Head Start may be the child's introduction to those uses of language that will pervade their entire school experience.

This research examines conversations between mothers and their children during episodes of book reading. Analyses focus on the following questions: What categories of information about the world (e.g., objects, attributes, events) do mothers provide? To what extent do mothers support a child's interpretation of a picture or text with specific links to the child's experiences outside the book reading context? To what extent do mothers explicitly discuss aspects of the text itself, such as the meaning of a word?

The data used to address these questions come from two studies. Study 1 examines an episode of picture book reading (The Egg in the Hole by Richard Scarry) with five children at 12 months, seven children at 15 months, and five children at 18 months of age. Study 2 presents longitudinal observations of one child at 9, 21, and 37 months of age. All children are normally developing girls from middle-class, English-speaking families. Transcripts were made of each book reading episode, and maternal utterances were coded for three basic meaning categories (Label, Description, Event), two categories that link book reading to other experiences (Real World, Other Texts), two categories about text itself (World Knowledge, Book Knowledge), and three miscellaneous categories (Attention, Orient, Value).

Results indicate that even the earliest book reading sessions include those elements that are basic to the construction and interpretation of a story. Mothers of 12-month-olds most often provide labels and prompt their children to produce labels for objects and characters, but this category decreases at the later sessions. Descriptions and events are more frequent at the later sessions. Mothers describe objects and characters in varied ways, especially at 15 and 18 months. At 12 months, descriptions include four types of attributes (texture, verbal routines, state, associations). By 15 and 18 months, descriptions also include size, location, quantity, and shape. Maternal descriptions are important because they provide a model for how to elaborate a topic; they implicitly point out the varied dimensions of experience that language can encode. Mothers also support the child's interpretation of a picture or text by linking it to the child's own experiences (Real World) or to previously read texts (Other Texts). Such support is evident at 18 months in Study 1, and as early as nine months in Study 2. Thus, from a very early age, children with early book reading experience learn how to talk about the world with the aid of specific references to personal experience. By 37 months (Study 3), there is some explicit discussion of aspects of the text itself. These conversations include information about the meaning of a work (Word Knowledge) and the process of printing text (Book Knowledge). Such discussions are metalinguistic or metatextural in nature. They focus attention on the manipulability of the text itself, and the symbolic potential of language in stories and books.

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Four- and Five-Year-Olds' Development of Narrative Skills in Pretend Play and Storytelling

Margaret S. Benson

In this study the effects of play and storytelling settings on the narratives of 4- and 5-year-olds were examined. Research on play indicates that this is a setting in which children demonstrate their understanding of roles (Garvey, 1977; Rubin & Wolf, 1979), their knowledge of scripts for events, and, by age 5, begin to produce plotted play scenarios (Sachs, Goldman, & Chaille, 1985). Previous research has suggested that play and storytelling emerge like a "wave of symbolization" (Gardner & Wolf, 1982), and research on children's narrative has often employed a play setting (e. g., Scarlett & Wolf, 1979). But pretend play and storytelling have different conventions, and at some point children must recognize this and be able to deal with it. Researchers looking at preschoolers' narratives differ on their ability to structure these, but one, Leondar (1977), argues that children can come up with a plotted Primary Narrative as early as age 3.

It was the intent of this study to see how children's narrative abilities were effected by setting. Each of 40 subjects (21 5-year-olds and 19 4-year-olds) was asked to play with a set of toy characters and make up a story based on pictures of characters. The characters and props were based on fantasy rather than everyday characters and events. Transcripts of the children's narratives were the basis of analysis. Play tasks were analyzed for differences in the way children used objects and gestures or language to represent events (referred to as level of event representation in play). Both play and storytelling tasks were analyzed for a variety of narrative variables; of interest here are narrative structure, and conflict and the attribution of internal states to characters.

There were no differences by age or setting in putting conflict in a narrative, or in making attributions about characters internal states. Across settings, 63% of the narratives contained conflict, and 68% contained information about the internal states of characters (this last is a significant proportion of the narratives). This suggests that skills practiced in play are successfully transferred to storytelling. As might be expected, 5-year-olds were more verbal in their play than 4-year-olds, and had an easier time inventing stories. Only one 5-year-old could not invent a story. Among 5-year-olds, 43% produced sequential narratives, and 33% came up with plotted narratives in storytelling. However, while 68% of the 4-year-olds produced a narrative in the play setting, 74% could not invent a story. Most (72%) of the plotted narratives were invented in the storytelling setting.

These results suggest that 4- and 5-year-olds, while understanding that play and storytelling place different demands on the participant, differ significantly in their mental models for a story.

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Learning the 3 R's: A Study of Young Children from Various Baltimore Communities

Susan Sonnenschein, Linda Baker, Robert Serpell

Differences in the average level of scholastic attainment (especially in reading and mathematics) across school districts are a common topic for discussion in the domain of public policy and among families and neighbors. The kind of intervention proposed, however, for enhancing educational opportunities for children growing up in disadvantaged, inner-city areas depends upon how the problem is defined. Public policy in this domain seems to have been dominated by the idea that low levels of performance on school tasks by such groups are due to deficiencies in the home environment, which calls for compensatory intervention, often as early as the preschool years. Such an approach may fail to recognize and build upon existing strengths of the target population (Fox, 1990). Concentrating on weaknesses while ignoring strengths presents an artificial picture and ultimately may lead to resistance from the target communities. Recent research has made it clear that literacy is best understood as a complex set of socioculturally embedded practices that differ from one community to another (e.g., Scribner & Cole, 1981; Heath, 1983; Wagner, 1987). In many cases, the parents of children who fare poorly in school are members of a minority subculture in which literacy practices are quite widespread. These practices, in fact, serve adaptive functions within the context of the social groups they have evolved to serve. But, because

these practices may not be congruent with expectations of mainstream American institutions, they often lead to school-based difficulties for the children from these communities.

Our project explores the development of emerging reading, writing, and mathematics skills as a function of cultural group membership, familial literacy and numeracy practices, relevant cognitive processes on the part of the children, parenting practices, and schooling. We have chosen these three skills because they serve as the cornerstone of the educational system. Although there is extensive literature on emergent reading skills, there is much less literature on either emergent writing or mathematical skills. One of our major goals in this project is to document the prevailing literacy and numeracy events and practices in the homes and neighborhoods of families from different sociocultural groups. We wish to generate a focused account of the developmental transition from preschool childhood through the early stages of elementary schooling for children from a variety of different types of home backgrounds in a large city. As the research progresses, we plan to put this account to work as a resource for the enhancement of cooperation between parents and teachers for the benefit of the children's education.

Our guiding hypotheses are: 1) distinctive patterns of cognitive socialization practices can be identified in the home environments of children being raised as members of different sociocultural groups; 2) those distinctive patterns reflect different implicit theories of child development and parental responsibility among the children's primary caregivers; and 3) a major source of variation in the patterns of school performance by children of different sociocultural groups is the variable degree to which the socialization practices and associated parental beliefs of their home environment match the developmental pathway defined by the curriculum of public elementary schools. In order to document in detail this variable match between home socialization and school curriculum, we propose to analyze the interface between them in several ways: the distribution of cultural resources; recurrent opportunities for learning; and the cognitive repertoire young children bring with them to school.

In pilot research begun during the summer of 1990, we explored various aspects of parent-child interaction that contribute to the growth of literacy and numeracy of children between the ages of 3 and 6 years in two communities with which we had informal connections: a suburban Orthodox Jewish community and an urban African-American neighborhood. Two research assistants (one of whom, in each case, was an insider to the community, while the other was a non-insider, a white Anglo) visited a sample of 17 families (10 Jewish and 7 African-American) for approximately 1 1/2 hours each and conducted a semi-structured interview concerning parental values, socialization goals and practices, and the pattern of everyday family life. In addition, they observed and discussed with parents several "scenarios" of daily life that seemed likely to reveal some of the ways children encounter and become familiar with the elements and processes important to the development of literacy and numeracy skills. Specifically, one of the following scenarios was observed during each home visit: a trip to the grocery store, meal preparation, bed time, a walk through the neighborhood, watching a television show that parent and child usually watch together. In each of these contexts, detailed notes were made of interactions involving such activities as reading or discussion of food product labels, recognition and discussion of signs and ads, counting of flatware, etc. Our purpose in the pilot study was threefold: to ascertain whether observing such scenarios "in vivo" was feasible; to determine whether literacy- and numeracy-related activities occur in such settings; and to develop a method for exploring our participants' ethnotheories of parenting.

The next phase of this research will be devoted to developing a set of systematic methods for documenting the literacy and quantification practices engaged in by children and parents. Ethnographic reports, home visits, parental interviews, and naturalistic observations will be supplemented by samples of video and audio recordings of parent-child interaction in selected families. This will provide concrete examples of ecologically and culturally valid task demands against which both child and parent behaviors can be assessed.

The remainder of this paper addresses some issues in designing instruments and techniques and selecting groups to maximize ecological validity. It is only through such measures that we can begin to understand literacy and numeracy practices across cultural groups. We believe such an understanding to be a prerequisite to designing and implementing effective interventions. The following considerations derive from our experiences with our pilot study.

In terms of strengths, it seems feasible, for the most part, to have observers watch families "living" their lives without affecting the ongoing familial interactions. "Bedtime," however, was adversely affected by the presence of observers. Parents reported using bedtime reading as a time for the child to "calm down." The presence of observers interfered with that. However, as all parents mentioned reading at bedtime to their children, we want to document this important literacy-encouraging activity. In the future, we plan to record rather than observe the interaction. A low frequency of occurrence is a problem endemic to much of naturalistic research. Certain events or interactions may occur too infrequently for us to rely solely on naturalistic observations. In the future, we plan to use naturalistic observations supplemented by structured elicitations as necessary. For example, a mother reports that going to the supermarket serves as a literacy-promoting activity for her child. But when we observe them at the supermarket, we find no such activities. If no literacy or numeracy activities occur within 15 minutes, we would instigate a series of probes to determine what behaviors would more typically occur.

We believe that individuals have a variety of beliefs about themselves, their cultural heritage, their children, and the interaction of these factors. There are general beliefs and specific beliefs. There are explicit beliefs that one voices frequently and implicit beliefs that one has never articulated. Are different cultures equally transparent to observers? Who should be the observer or observers? Is it an insider who shares certain knowledge, if not beliefs? Or is it an outsider for whom one needs to articulate one's

implicit beliefs? At present, we think the most useful way to explore an individual's ethnotheories is through a process of triangulation, that is, using as observers both insiders and outsiders to the specific cultural community. If certain of our beliefs are implicit and not articulated, then how does one elicit these beliefs? Through interviews? Through *in-vivo* observations? Through responses to videotaped scripts? Based on our pilot data, we believe all three are useful in helping individuals articulate their ethnotheory of parenting. Thus, we propose to collect these complementary sources of information.

Although theoretical concerns should determine which cultural groups are selected, how should we select the subjects within our groups? We selected our participants based on cultural group and community. However, our Jewish group appeared to be a more homogeneous group than our African-American group. Is this a cause for concern? What factors influence cultural identification and does this differ across groups? Can one use the same selection criteria across groups?

Preliminary analysis of our pilot data reveal comparability in the type (but not the amount) of cognitive skill-fostering items in the home. All children had some books. And all caretakers reported reading to their children. Based on the data and our reading of the literature, we believe that there will be differences in how caretakers interact with their children and what expectations they have of their children. There may also be a difference in the nature of extracurricular activities engaged in, with certain activities more likely to foster school-related skills. Thus, certain extracurricular activities may more readily translate to future school success.

This presentation is a review of an early phase of a longitudinal research project focusing on the development of children from different sociocultural groups and communities in their acquisition of reading, writing, and mathematics skills. We have used our pilot study to consider theoretical and methodological issues.

Home and Preschool Correlates of Kindergarten Literacy: A Longitudinal Analysis

David K. Dickinson, Petra Nicholson

Although study of the effects of preschool on later academic achievement has revealed short-term academic gains, we know nothing about linkages between particular features of children's interaction in classrooms and specific cognitive skills, nor about interactions between program effects and family variables. These needs are addressed by this longitudinal study of the effects of preschool and home experiences of low-income children on language and literacy development. We assume that literacy is a multi-componential skill and that these varied components are supported by different experiences. Development of language awareness and acquisition of letter name knowledge should be supported by experiences that help children attend to print. Comprehension should be supported by experiences using language to talk about non-present events and language (i.e., decontextualized language).

The classrooms of 25 children were visited when the children were 3. During a full-morning visit, target children's talk was audiotaped and teachers were interviewed. Audiotapes were coded for the type of interaction and the duration of each interaction. Interviews were coded for teachers' pedagogical orientations. Outcome measures from when children were in kindergarten come from the Early Childhood Diagnostic Instrument, a story comprehension task, and picture-description story telling tasks. These children also were visited in their home, with results being reported in a companion paper. (For SRCD, data on interaction in the home will provide control variables to help reveal schooling effects.)

Three composite outcome measures were constructed to represent three major domains of literacy-related skill: print knowledge (phonemic awareness, letter name knowledge, decoding skill, writing concepts), language analysis (language concepts, word definitions, superordinate terms), and monologue skills (length of story and picture description). While the interrelationships among these outcomes were statistically significant, they were not uniformly high (r ranged from .44 to .82).

A regression model predicting language analysis that controlled for length of classroom day and maternal education revealed a negative association with time, coded as "non-language" (no talk on a single topic lasting longer than five seconds) (overall R^2 =.53), and a positive association with time teachers reported spending reading books to individual children (overall R^2 =.54). For monologue skills, after controlling for gender by race interaction -- Black girls told longer stories -- we found effects of teacher's thoughtful use of literature and effects of concern for supporting language and cognitive development (total R^2 =.51 for each model). No models could account for sizable amounts of variation in print knowledge scores.

As predicted, distinct clusters of skills associated with later literacy were identified that are differentially associated with prior experiences. Preschool experience engaging in talk -- especially when that talk is in a classroom taught by a teacher who is concerned with fostering development of language and cognition, who makes thoughtful use of books and strives to read to small groups or individuals -- is likely to support development of abilities associated with decontextualized language. These results are especially hopeful because this data reflects results from only the first of three school visits (one each year) from the first two cohorts.

The Role of Parents in Supporting Beginning Reading

Christi Bergin, David F. Lancy

Research has indicated that children who learn to read easily and at an early age are read to at home. As a result, educators are promoting programs designed to get parents to read to their children, particularly those at risk for reading problems. However, educators are not telling parents how to read to their children, partly because there is a dearth of research on parent-child reading in the early elementary years. The purpose of this study was to document variation in parent-child interaction during joint storybook reading, and specific parental behavior patterns associated with children's reading fluency.

Thirty-two white, working-class parent-child pairs were videotaped for 30-40 minutes while reading to each other from a varied collection of picture books in a simulated home setting. As each child reached the ability to begin to read books independently, as judged by the classroom teacher, a parent was invited to come to the school to read with the child. All pairs included some parent-to-child reading and some child-to-parent reading. Variables included: 1) parents' error correction tactics; 2) commentary on the books; 3) children's asking of questions about the book; 4) purpose for reading; 5) affective quality of the relationship.

Parents' error correction tactics are important at this age because children make many mistakes -- the single most frequent kind of child-parent interaction was the correction of the child's reading errors -- yet there is no research on it. The next three variables were included because studies on pre-readers show that discussion of the book, asking open-ended questions, and stressing meaning facilitate academic development. This study addresses whether these variables are relevant for beginning readers. The final variable was included because family interaction research indicates that a warm parent-child relationship fosters cognitive development.

Our dependent variable is the child's fluency grouping. Two factors were taken into account when children were categorized: 1) number of words read per minute (which ranged from 9 to 153 in a 3-minute segment), and 2) age of the child. Good readers were fluent and early (reading in kindergarten or the first part of first grade). Poor readers were non-fluent and late (reading in the last half of first grade).

Total number of error corrections (from seven categories) ranged from .40 to 6.65 per minute of the child's reading. The most common tactic was simply telling the child the word. The second most common tactic was to say "sound it out" while helping the child with decoding. Parents were readily classifiable into being predominantly semantic- or decoding-oriented in the use of correction tactics. Poor readers had parents who were below average in use of "semantics-oriented" tactics and above average in use of "decoding-oriented" tactics. Conversely, good readers had parents with the opposite profile. A striking difference between these groups was that the children whose parents used semantic-oriented tactics were able to maintain story flow. Children whose parents were decoding-oriented often labored over words to the point of losing the gist of the story. The scores on total commentary on books (parent and child comments combined across 10 categories) ranged from 0 to 58 (median= 19). Given that all possible comments were tallied, including simply giggling, commentary was not frequent. There was no relationship between amount of commentary and the child's fluency group. We tallied the number of child-initiated questions and parents' responses. The range for total number of questions asked during the observation session was zero to eight, with most (23) children asking two or fewer questions. This fits with the previous section, indicating that, for most dyads, there was very little discussion of the text.

Both good and poor readers were equally likely to ask questions. However, how their parents responded to the question was associated with fluency group. For children who did ask questions, the majority (9 of 12) of those who had parents who encouraged questions were good readers, and those whose parents discouraged questions were primarily (5 of 6) poor readers. Each child and each parent was categorized according to a subjective sense of their overall purpose for reading, as either getting meaning, having a good time, learning skills, or getting through the task. Parents read either for fun or to learn skills. Children read for fun or to "just get through it." Neither read for meaning. The greatest variation in purpose exists when the child is reading. When the parent reads, almost all pairs read for fun. Purpose for reading is associated with fluency as indicated by a chi-square test. For good readers, the purpose for both parent and child while the child reads is to have fun. For poor readers, the purpose for both while the child reads is to learn skills or get through the task.

Eight dimensions of the relationship were assessed: physical proximity, praise, criticism, warmth, emotional spontaneity, supportiveness, hostility, and positive affect. Only four parents made critical remarks; all four had children who were poor readers. Amount of praise varied widely, from 0 to 2.89 per minute of the child reading. Most (12 of 15) good readers had positive relationships and most (12 of 16) poor readers had negative relationships. Praise was not significantly related to fluency.

Educators encourage parents of high-risk children to read to them, but without a sense of how that advice is carried out by different parents. This study provides a picture of the variation among beginning readers and their parents during storybook reading. The variation was striking, even though the sample was from a relatively homogenous low-income population. The elements of that variation that were associated with the child's level of fluency included parents' error correction tactics, purpose for reading and style of reading for both parent and child, quality of the relationship, and parental response to the child's questions. Amount of commentary and questioning were not related to fluency. Thus, the overall profile of parent-child interaction for good readers is reading for fun, hamming it up, keeping the story flowing (without letting the child get bogged down in decoding), and encouraging questions about the story and having a warm, supportive relationship.

Learning about Learning: GED Preparation Helps Young People Become Adults to the Children in Their Lives *Rachel Theilheimer, Barbara Hernandez*

Increasingly, Head Start programs are finding that to serve their parents well they must be aware of educational opportunities for young parents who have not graduated from high school. If today's parents are to successfully climb the Head Start employment ladder, they must place their feet on the first rung -- a high school diploma or its equivalent. Such programs can be made even more meaningful for Head Start parents if they can combine GED preparation or high school classes with child care training.

Since 1988, the Young Adult Learning Academy (YALA) has offered students a child care course. YALA is a program of the City University of New York that is funded by the New York City Adult Literacy Initiative, the New York City Department of Employment, the New York City Board of Education, and the New York State Legislature. It serves out-of-school youth between the ages of 16 and 24, who are not yet ready to pass the General Equivalency Diploma (GED) exam. At YALA students take courses in basic skill areas and prepare themselves for work through occupational education courses. The child care course is such a course. YALA began its child care course to provide YALA students, many of whom are already caring for young children, information about parenting and early childhood education. The course has had triple benefits: the students' writing attests to their having learned concrete information about children, to their changed attitudes towards children, and to an increased awareness of their own learning processes.

The child care course has consisted of three main components, reflection, experience, and writing. Its students are regularly asked to reflect upon their own experiences as children and with children. They contemplate having been read aloud to as children and reading aloud to children as young adults themselves. They remember their best teachers and how they felt about working puzzles. They consider how they would respond to a child who asked them to draw a fire truck. In class, they play with water, dough, and blocks, reflecting further on children and how learning happens. Concrete materials used in child care settings prepare them for work experiences in such settings and help them, as one student has said, put themselves in the children's shoes. Their past and recent experiences become the foundation, then, for a new view of early childhood education, one which they record on computers, each student developing a child care manual of his or her own.

As students work, the teachers, too, reflect, have experiences, and write, finding that the students' learning have gone far beyond what had been anticipated. Students' writing and reading skills developed as they worked on their manuals; their social science skills were honed as they learned about development by collecting data themselves; and their math and science skills became more grounded as they explored those areas through manipulative toys, water play, and preschool science materials. Teachers of basic skills to YALA students have begun to incorporate connections to children into their own courses, using blocks to teach geometry, generating surveys about children's issues, and teaching science in conjunction with explorations taking place in the child care class. This has led to an expansion of child care offerings at YALA and to a brand new parenting and child advocacy program. Within the next few years, a small model infant program will be established and a curriculum for making parenting and child care issues an integral part of all YALA students' experience will be refined. Already, YALA students have enthusiastically participated in a half-day conference, documenting their thirst for information about children and their need to share their own ideas.

YALA's program has important implications for Head Start programs nationwide. Its model of integrating child development and parenting information into Adult Basic Education parallels Head Start's own comprehensive model. As Head Start works with the whole child, so YALA's parenting model strives to address the needs of the whole parent.

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Readiness 2000: Preparing Semiliterate and Illiterate Parents to Meet The Challenge

Patricia A. Edwards

Several researchers have reported that many economically and educationally disadvantaged children enter school with little or no knowledge of books (Dickerson, 1989; Morrow, 1988, 1987; Teale, Martinez, & Glass, 1988). In fact, some of these children come from homes where their parents have never read a book aloud to them. In response to this claim, reading educators have suggested overwhelmingly that one way to help these children is by encouraging their parents to read aloud to them. For example, Teale (1981) found that "virtually every reading methods book or early childhood education book written, and dozens of articles, recommend that families read to young children in order to provide a sound foundation for learning to read and write in later years." In Becoming a Nation of Readers, the influential 1984 report of the Commission on Reading, a group a 10 experts agreed that reading aloud to children is the single most important factor in preparing them to read (Anderson et al., 1985). They stated: "A parent is a child's first guide through a vast and unfamiliar world,...a child's first mentor on what words mean and how to mean things with words,...a child's first tutor in unraveling the fascinating puzzle of written language." Even more recently, Gallimore and Goldenberg (1989) have indicated just how important reading to children at home is to their development as readers in school. They concluded that "children who learn to read in school with minimum difficulty enjoy the following at home: abundant experiences with simple

books, repeated readings of familiar books and stories, and opportunities to read or `pretend read' favorite books to themselves and to more competent adults and older children."

Few will question the importance of reading aloud to children, but a number of researchers have questioned the feasibility of teachers requesting parents to read to their children when they are unable to read themselves. According to Chall, Heron, and Hilferty (1987), "27 million Americans can't read a bedtime story to a child...Functional illiteracy has become an epidemic...that has reached one out of five Americans. It robs them of a decent living,...of the simplest of human pleasures, like reading a fairy tale to a child." France and Meeks (1987) argue that "parents who do not have basic literacy skills are greatly handicapped in meeting the challenge of creating a `curriculum of the home' to prepare their children to succeed in school. Furthermore, they can't help their children build a foundation for literacy because they are unable to read to them."

They go on to raise an important question: "What, then can be done to help illiterate and semiliterate parents give their children the support they need to be successful readers?" In response to the question raised by France and Meeks, I developed Parents as Partners in Reading, a program designed to help semiliterate and illiterate parents support their children's development as readers. The purpose of this paper is to describe the development of this program. The first section of the paper highlights the strengths of this program and what is unique and generalizable about it. The second section summarizes how four semiliterate mothers (two Black and two white), who were themselves trained during a year-long program, trained other semiliterate and illiterate parents to share books with their young children (see Edwards, in press; Edwards & Gallego, 1990).

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Development and Evaluation of a Family Math Program for Project Head Start

Prentice Starkey, Alice Klein

Two national educational goals are that every American child is to start school ready to learn and that American students are to rank first internationally in mathematics and science.Children's competence in society -- as students and later as members of the work force -- depends more than ever before on the acquisition of mathematical and related logical and technical skills.Children and youth who do not acquire math and related skills in school will find many careers closed to them in adulthood. Economically disadvantaged children are especially at risk in this regard (Office of Educational Research and Improvement, 1985-86). Data on mathematics achievement in California document the degree of risk (Haycock & Navarro, 1988). On average, these children are underachieving in mathematics, and their parents are under-represented in scientific and technical occupations.

But underachievement in math begins long before high school for economically disadvantaged children (Entwisle & Alexander, 1990). At what age do differences in math ability first appear? Research findings indicate that although all constitutionally normal children develop the same types of basic numerical abilities, children develop these abilities at different rates (Klein & Starkey, 1988). Rate differences have been found to be associated with socio-economic variables (Ginsburg & Russell, 1981; Saxe, Guberman, & Gearhart, 1987; Starkey & Klein, 1991). At 4 years of age, more highly developed numerical abilities are present in middle-class children than in both working-class and poor children when matched for ethnicity. SES-related differences in numerical abilities do not appear to be present, however, at 2 years of age.

The principal objective of our project is to reduce the SES-related gap in math abilities upon entry into kindergarten. To achieve this objective, we are designing and evaluating a preschool math curriculum for Head Start. This math curriculum will be used in an intervention directed at Head Start children's developing math abilities and at Head Start parents' involvement in their children's math education. The project is being conducted over three years, during which a Head Start Family Math program will be devised, implemented, and evaluated through an intervention at two Head Start sites, and Head Start Family Math training workshops will be planned for the fourth year. There are four principal components of the project: 1) curriculum development, 2) intervention, 3) dissemination, and 4) training.

In developing the Head Start Family Math curriculum, the goal is to create a set of math activities with "hands-on" materials that are engaging and developmentally appropriate for preschool children. Together, the preschool math curriculum and the Family Math Pedagogy constitute the Head Start Family Math program to be implemented in the intervention phase of the project.

The goal of the intervention is to demonstrate the effectiveness of the Head Start Family Math program. Specifically, we will implement the program in an intervention at two Head Start sites (in successive years), and we will evaluate the impact of the program on individual Head Start children, their parents, and the relationships among children, parents, and teachers at each site. The intervention will be conducted at two sites that serve different populations in order to determine the robustness of any observed effects. One of our Head Start partners, the Berkeley program, operates in Alameda County and serves predominantly urban Black families. The intervention will be conducted in English at this site. Our other partner, the Santa Clara program, operates a site in San Benito County (Hollister) that serves primarily rural Hispanic families.The intervention will be conducted in Spanish at this site.

The principal goal for dissemination is to establish a national Head Start Family Math network. The purpose of this network is to assist Head Start parents in providing a supportive mathematical environment for their children as they proceed through school, and thereby facilitate the transition from Head Start to the public school system. The network will link up Head Start parents with Family Math courses that are taught for parents and school-age children. Our proposed network can be viewed as an addition to Head Start's transition programs, but with a unique focus on math. If the intervention is effective, we will plan Head Start Family Math training workshops for in-service Head Start staff. The purpose of the training workshops is to transfer the teaching of Head Start Family Math courses from research project staff to Head Start.

The Head Start Family Math program comprises a preschool math curriculum and an instructional technique, the Family Math Pedagogy, for implementing the curriculum in courses with parents and children. We developed the preschool math curriculum by surveying a variety of sources of children's math activities and compiling a set of math activities with materials to accompany them. The preschool curriculum that will be implemented in the Head Start Family Math program includes seven topics with multiple activities and accompanying materials under each topic: 1) number concepts; 2) arithmetic operations; 3) logical reasoning; 4) measurement; 5) geometric concepts and spatial reasoning; 6) patterns; and 7) graphing (data collection and representation). From this curriculum we will select one set of math activities representing each topic to comprise the Head Start Family Math course, and a second set of math activities to create a Family Math library in the Head Start intervention classroom. Family Math is a successful math program for grades K to 8 that was developed at the Lawrence Hall of Science, University of California, Berkeley (Stenmark, Thompson, & Cossey, 1986). The principal goal of Family Math is to give parents and children opportunities to develop an understanding of math concepts through "hands-on" activities. Family Math pedagogy emphasizes early success so that children will want to continue with activities, open-ended problem solving rather than repetitive drill, and a supportive environment in which parents and children feel comfortable doing mathematics together. This teaching style has been incorporated into our Head Start Family Math program, but has been adapted for use with parents of preschool children.

The general design of the project is a math intervention that will be implemented at two Head Start sites. The math intervention comprises a course to help families become more involved in their children's mathematics education and a library of math activities and materials for parents to use at home.

The methods used to evaluate the effectiveness of the math intervention include four instruments: parental interview, individual assessment, family unit assessment, and teacher questionnaire. These instruments will be administered to the intervention and control groups at each Head Start site in a pre-test/post-test design. Parental interview will provide qualitative information about dimensions of the home environment that are relevant to the goal of ensuring that children begin school ready to learn math. Individual assessment will examine mathematical problem-solving by individual children. Family unit assessment will examine mathematical problem-solving by parent-child dyads. Teacher questionnaire will assess teachers' perceptions of the impact of the Head Start Family Math program on the parent-child relationship, the parent-teacher relationship, and the parents' involvement in their children's classroom.

The principal objective of our project is to design, conduct, and evaluate an effective math intervention for Head Start families. We assume that an effective intervention will have a beneficial impact on parents as well as children who participate in the Head Start Family Math (HSFM) program. Participation in the HSFM program will foster a positive attitude about mathematics. Parents in the intervention groups will value mathematics in school and in the workplace more highly than parents in the control groups. Participation in the HSFM program will help parents provide a home-learning environment that supports their children's developing mathematical abilities. Participation in the HSFM program will foster the development of young children's mathematical abilities. Children in the intervention groups will be more able mathematically than children in the control groups. Participation in the HSFM program will provide numerous opportunities for parents and children to work together on math tasks and problems, and thus will encourage the development of dyadic (parent-child) problem-solving skills. Participation in the HSFM program will be enjoyable and will foster better communication between parents and children, thus enhancing the quality of parent-child relationships.

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Task Variables Affecting Early Mathematics Learning *Susan M. Hegland*

The purpose of the present study was to investigate the impact of materials, response type, and thematical knowledge on young children's counting performance. Children construct, rather than absorb, mathematical knowledge (Resnick, 1989; Kamii, 1982). Mathematical knowledge consists of both conceptual and procedural knowledge (Hiebert, 1986). Conceptual knowledge refers to relationships among concepts (e.g., cardinality, more), while procedural knowledge involves skills in executing processes (e.g. counting, adding). Linking conceptual and procedural knowledge may require the automatization of procedures (Schneider & Shiffrin, 1977), so that children can utilize processing capacity to reflectively abstract mathematical patterns and relations. (Ginsburg, 1982; Nesher, 1986).

Numerous studies have shown that mathematics learning is aided through the use of manipulatives (Jamison, Suppes, & Wells, 1975; Suydam & Higgins, 1977). However, in a Chapter 1 classroom, Larson and Slaughter (1984) observed that some manipulative activities involved highly complex rules that became a technology learned parallel to (or, possibly, instead of) the mathematics content. The significance of such complex rules may not be only that they hinder the child's performance in that one activity. Task components with high cognitive demands may distract the child from forging links between concepts and procedures, or from reflecting abstracting new concepts.

The motor response involved in a given mathematical task may also be significant in absorbing the child's cognitive processing capacity and distracting him from linking procedural and conceptual knowledge. For example, in order to color, cut, or paste accurately, the child may need to focus on the motor skills to the extent that he/she again loses track of the counting task. In contrast, some motor responses may initially serve to focus attention on a mathematical concept or procedure. Gelman and Meck (1983) pointed out that such activities help the child keep separate the items already counted from those remaining to be counted. Therefore, placing and marking may help the child focus on the mathematical concept or procedure to be learned, while attaching and coloring may only distract the child from it. Resnick and Ford (1981) argued that research on mathematics needs to study materials similar to those used in classrooms. Therefore, the present study used materials adopted from popular early childhood mathematics curricula developed by Brown (1982), and Rucker, Dilley, and Lowry (1985).

Subjects were 88 preschool and kindergarten children who ranged in age from 39 to 79 months of age. A brief five-item pretest that required the child to count and demonstrate one-to-one correspondence was used to assess the child's mathematics knowledge; internal consistency was satisfactory. Four sets of mathematical materials using two types of materials (manipulatives and pictorial) and two types of responses (focusing and distracting) were developed. Subjects from each classroom were randomly assigned and individually tested in one of four experimental conditions: marking pictures, coloring pictures, placing counters, or attaching clothespins. Each subject's score was the number of error across the four trials.

The effects of materials, motor responses, and mathematical knowledge on counting errors were assessed using a 2 (materials) x 2 (response) x 2 (mathematical knowledge) between-subjects ANOVA. Significant main effects were found. The dependent variable was the square root of the total number of counting errors across the four trials; however, to aid interpretation, means and standard deviations are reported without the square-root transformation. As predicted, children using manipulatives made fewer errors than did children using pictorial materials. As predicted, children using focusing responses made fewer errors than did children using distracting responses. As the earlier correlation between mathematical knowledge and errors indicated, children with higher levels of mathematical knowledge made fewer errors than did children with lower levels of mathematical knowledge. No significant interactions between response and mathematical knowledge, or between materials, response, and mathematical knowledge, were found. However, a significant interaction between material and mathematical knowledge was found ($p < .05$). Children with higher levels of mathematical knowledge made significantly fewer errors using manipulatives than using pictorial materials.

As hypothesized, children made fewer errors using manipulatives than using pictorial materials; however, the effect size was relatively low. Our results also suggest that performance is significantly affected by the types of motor responses required in both manipulatives and pictorial activities; we found a moderate effect size of response type. In the current study, at all levels of mathematical knowledge, children who were using distracting motor responses, such as coloring pictures or attaching clothespins, made significantly more errors than did those children using focusing motor responses, such as marking pictures or placing counters.

Distracting motor responses, by occupying the child's limited information-processing capacities, may prevent the child from automatizing procedures, constructing new concepts through reflective abstraction, and forging new links between conceptual and

procedural knowledge. Future research needs to assess the impact of distracting motor responses on the child's link between conceptual and procedural knowledge and on the map from manipulative to pictorial and symbolic materials.

Recently, much attention has been directed toward the need to use manipulatives in early childhood programs such as Head Start. However, manipulatives that require distracting motor response, such as the clothespin activity used in the present study, may not help the child learn mathematics. Both manipulatives and pictorial activities may be counterproductive if they serve to distract children from linking mathematical procedures, such as counting, from mathematical concepts, such as cardinality. Results of the present study suggest that children may make significantly fewer errors and learn more mathematics when teachers modify task demands to help children focus their attention on mathematical concepts and procedures. For example, simply suggesting that children first count the correct number of clothespins before attaching them may help reduce errors and increase children's mathematical understanding.

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COMPUTERS

Children's Responses to Original Computer Readiness Activities *Blythe Hinitz, Harlene Galen*

From 1983 through 1987, children in the Ewing Head Start program, housed at Trenton State College, New Jersey, and kindergarten students at the Magowan Elementary School in Edgewater Park, New Jersey, participated in a computer readiness project. In 1988 and 1989, a refined project, based on the findings of the initial three years, was provided for Head Start youngsters only. The project took place in regular classroom settings, not in a laboratory, on a very limited budget. Utilized were "found" materials, available to most Head Start personnel, such as pictures of computer components cut from magazines, photocopies of sketches of computers, old workbooks, plastic shower curtains (for magic marker drawings of giant-sized computer keyboards on which children could walk), shoe boxes (for making mock disk drives), and cardboard cartons (for making mock keyboards).

While the major thrust of the project was on children's development of an understanding of the concept of "computer" and concomitant development of positive self-concepts, social skills, language skills, small and large muscle coordination, and problem solving, adult learning was a secondary target. College students in the teacher education program worked with Head Start personnel and other professional educators in observing and discussing children's development of this technological concept. Kindergarten parents and college students participated in teaching and playing the experimenter-designed matrix games, card games, turtle games, and physical activities of the project with the children. Insights, leading to the modification of these components, were discussed among the college students, Head Start staff, kindergarten teachers, and parents. Benefits of the project include possible greater involvement of Head Start parents in activities, based on kindergarten parents' model; a potential for articulation among college professors, Head Start Staff, and public school kindergarten teachers and administration; and a potential for staff-training.

An adaptation of Lassar Gotkin's "gaming" formed the basis of some of the children's learning about computer components and the concept of computers. "Gaming" is a method whereby the child is seen as a self-directed learner to whom the adult can transfer control of the learning of "transactional instructional" games in a systematic fashion. In addition to these games, which utilized matrix boards, children experienced a mini-unit, in which: parallels were drawn between the functions of parts of the human body and parts of the computer; they took part in active singing games about the computer; played card games related to the computer; engaged in dramatic play with disk, disk drive, and keyboard mockups; discussed and made up stories about original drawings of computers. Throughout the experience children learned through "hands-on" interactions with the materials.

Research was conducted during the second and third years of the project. Participants were in three types of classes: kindergarten-experimental, kindergarten-control, and Head Start. All children were given a pre-test at the beginning of each academic year, then only the kindergarten-experimental and the Head Start children were provided with a computer-related classroom instructional unit, games, and activities. The kindergarten-control group did not receive these. A post-test was administered to all groups at the completion of this phase. Next, all children entered a "hands-on" phase, where they were able to use real computers with software oriented toward their interests and capabilities (Head Start children used Apples, kindergarten children used Commodores). A second post-test was taken by all children at the end of the last phase. The identical pre-/post-tests consisted of a set of 10 cards. Each card contained a picture of a different part of the computer. Each child was shown one card at a time and

asked to give the name of the part and identify its function. The 10 parts illustrated were: monitor, keyboard, central processing unit (CPU), disk drive, disk, tape recorder, tape, printer, mouse, and joystick.

Nine possible types of learning progression patterns were observed. They represent possible changes that could occur in the amount of information children retained between the first and second tests and between the second and third tests in all the classes. Only the overall pattern was considered, not the amount of the increase. In general, pre- post-test results showed that the initial instructional unit, games, and activities enabled the kindergarten-experimental class children to achieve the highest scores by remembering the largest number of parts and their functions. Furthermore, although Head Start children did less well, they remembered as many or more names and/or functions of the various parts as the kindergarten-control group.

In summary, children who had benefitted most had experienced both participation in the initial classroom instructional unit, games, activities, and the "hands-on" phase. Children's "hands-on" exposure alone was less beneficial. Interestingly, in the third year's post-test, not only the kindergarten-experimental children's but also the Head Start children's incorrect answers on the second post-test included more computer than non-computer terms. This finding suggests that although they were unable to identify completely and accurately all the specific computer components, they were able to differentiate between items that belonged with the computer and those that did not. The project, as presented in the professional literature and at local, national, and international conferences, has generated interest among professionals around the world because of its low cost, adaptability, flexibility, currency regarding technology, concreteness, and use of teacher-made materials.

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Access to Classroom Computers Affects Head Start Families *Suzanne Thouvenelle, Leslie Yenkin*

This research explores some incidental learnings that were discovered during the three-year Head Start/IBM Partnership study. The Head Start/IBM study began in April 1987, as a partnership between Head Start and the IBM Corporation, with two pre-pilot Head Start programs located in Baltimore, Maryland. Over the next year it was expanded to include eight additional innovative grantees interested in using computers in their classrooms. Initially, this formative research was designed to focus primarily on the identification of developmentally appropriate software and an appropriate hardware set-up that would facilitate use by young children. Based upon experiences with the two pre-pilot Head Start programs, we found it was important to consider additional areas where technology had an impact. The partnership study focus expanded to include the following objectives: 1) identification of quality software for young children; 2) development of integration strategies to enhance the appropriate use of technology within the preschool classroom; 3) determination of training and support requirements for Head Start teaching staff, parents, and classroom volunteers; 4) evaluation of the type and nature of software appropriate for Head Start children; 5) determination of an optimal hardware configuration for young children; 6) identification of peripheral devices that can be used as supplementary to the keyboard; 7) identification of software that supports use of technology by teaching staff; and 8) identification of software that supports computer use by Head Start parents and family members to enhance literacy skills and job-training capabilities. The results of the formative evaluation (Head Start/IBM Partnership Project) were formally disseminated through a publication, Computers in the Head Start Classroom.

During the course of the partnership study, additional areas of further research emerged. It became evident that for a number of Head Start parents and family members, the computer served as a catalyst for promoting interest in the technology for their own use. Head Start parents and family members increased their participation as volunteers in Head Start classrooms. They became motivated to explore the use of the computer to help them gain mastery of basic skills, to support preparation for the GED, and improve their own literacy skills.

VIOLENCE IN FAMILIES

Aspects of Children's Self and Social Support Systems as Moderators of Child Functioning in Violent Families

B.B. Robbie Rossman, Mindy Rosenberg, Christine Rawlins, Neena Malik

Many lines of research are converging to suggest that children's exposure to parental conflict and violence is detrimental to their well-being (Jaffe et al., 1990). Researchers are now turning their attention to factors that might mediate children's responses to family violence. Family violence constitutes a chronic rather than an acute trauma situation, and, as such, would be expected to be responded to with charges in developmental systems rather than temporary adjustments in behavior (Garbarino et al., 1991). For this presentation, risk and protective factors are organized around a needs analysis (Connell & Wellborn, 1990), which highlights the fulfillment of three basic needs as essential for development: relatedness, competence, and autonomy. The ways in which these needs are attended to or not by the child, his/her caretakers, and the larger environment provide the foundation for the child's organization of strategies of adaptation. There are certain familial or environmental circumstances (e.g., family violence or abuse) that may chronically threaten fulfillment of some needs (e.g., relatedness needs). Children's chronic attention to unmet needs can color the way in which social, cognitive, affective, and self-systems processes evolve. Factors that leave basic need more chronically unfulfilled are labeled here as risk factors, and those that promote ongoing need fulfillment are conceptualized as protective factors.

It has been our goal in three related studies -- two of school-age and one of preschool witnesses and non-witnesses to family violence -- to examine the ability of some developmental needs-related factors to act as moderators of the negative effects of family stress and conflict on child functioning; stress and parent conflict being highly correlated in these data. CBCL total problem behaviors (Achenbach, 1979) and the PTSD symptom subscale (Wolfe et al., 1989) provided outcomes of interest, since they serve as signs of distress and interference with development. Following Masten et al. (1988), moderator variables were defined through hierarchical multiple regression analyses with predictors entered as follows: moderator variable; LEQ family stress score (Garmezy et al., 1984); Hollingshead and Redlich SES code (Miller, 1977), and the moderator-by-stress interactive predictor. This procedure provides a more rigorous demonstration of moderators than has occurred in most previous work in that moderator variables must be shown to moderate a child's outcome in conjunction with a significant negative contribution of stress to outcome. A compensatory moderation model (protective factor) is demonstrated when both the moderator and stress predictors provide significant increases in outcome variance accounted for. An interactive moderation model is supported when the moderator-by-stress interactive predictor provides a significant increase in variance accounted for. An interactive model shows that the moderator has a different effect on outcome, depending on stress level. The only type of interactive model supported in these data was a vulnerability model, wherein having more of a moderator was associated with poorer outcome at higher stress levels than at lower stress levels, but having less of a moderator was associated with better and approximately equivalent outcome across stress levels.

For school-age children, compensatory moderation relevant to relatedness needs was observed for lower family violence history, lower maternal power assertion, lower maternal abuse proneness, greater use of parents for coping, higher maternal marital satisfaction, and having mothers who reported fewer distress symptoms and a more positive view of self and child. All of these effects were consistent with expectations based on previous research. A child's social competence, regarded as useful for relatedness and competence need-fulfillment, also served as a compensatory moderator. Other compensatory moderators thought to foster competence need-fulfillment included higher self-calming conflict-control beliefs, lower use of distress communication behaviors for coping, and lower history of emotional problems. These factors suggest that children's display of social and affective competence or belief in their affective control is useful. A significant denial by stress interactive predictor also highlighted the importance of affect regulation for these children, showing lower denial children to have better outcome across stress levels, whereas higher denial children were more vulnerable to poorer outcome at higher stress. The above-mentioned compensatory effects of lower maternal power assertion and abuse proneness were also seen as relevant for autonomy need-fulfillment if, at higher levels, both factors should serve to reduce autonomy opportunities and moderate poorer outcome, which was the case. Thus, for school-age children, results indicated that relatedness needs moderators reflecting the mother-child relationship and mother's well-being, and competence need-fulfillment moderators having to do with social skills and how a child regulates distress may be especially important for children exposed to high family stress, a strong component of which is marital conflict and violence in these multi-problem families.

Turning to the preschool sample, moderator effects were observed for factors thought to influence most directly the meeting of competence needs. Two interactive predictors showed vulnerability moderation and suggested that children who reported weaker beliefs about their ability to control parental conflict by intervening and who had lower levels of past emotional problems were showing better outcome, while those with higher levels of control beliefs or past emotional upset were showing increased problem behaviors and PTSD symptoms in higher-stress families. These moderators underscore the importance of affect-regulation development and competencies for preschool child witnesses.

In sum, our results suggest that social, affective, and self-system factors having to do with the management of parental conflict, the child's family relationships, mother's well-being, and the child's social competence and style in regulating affect may be especially fruitful for further investigation with children from violent families. This is not surprising, since relatedness need-fulfillment

and skills and affect-regulation competencies would be likely systems to be disrupted by growing up in violent environments. Assessment of the parenting environment as to its need-fulfillment capabilities and of the child's social and affect-regulation competencies should be carried out for child witnesses. Interventions that could promote relatedness and competence need-fulfillment would include helping the child understand his/her appropriate role in parental conflict, develop effective affect-communication and regulation strategies, and learn to appraise and react to social situations so as to foster healthy interactions. A great deal of work remains to be done to increase our understanding of how basic developmental pathways are altered by exposure to parental violence.

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Play Interaction in Maltreating and Non-Maltreating Mothers and Their Children's Family Day Caregivers *Jay Fagan, Martha M.Dore*

Studies of maltreating parents and their children have consistently emphasized the assessment of both parent and child behaviors in the context of the family environment. Most studies have focused on specific maladaptive behavior patterns in parents and children that closely relate to the abuse or neglect in the family. Abusive parents have been shown to be less consistent and effective than non-abusing parents in their use of punishment with children (Elmer, 1977; Trickett & Kuczynski, 1986). They have been found to be less verbal with their children (Disbrow et al., 1977). They use more negative and fewer positive statements towards children (Bousha & Twentyman, 1984), and they show less positive affect in interactions with their children. Studies of maltreated children's behaviors have also focused on behavior patterns that are likely to distress parents. Abused children have been shown to be more aggressive and avoidant of peers and adults (George & Main, 1979), they lack persistence and ego control, and they show more negative emotion than non-abused children (Egeland, Sroufe, & Erickson, 1983). Reid, Kavanaugh, and Baldwin (1987) reported that abusive mothers perceive their children as hostile, withdrawn, hyperactive, and aggressive, although observers did not find that these behaviors were any more prevalent than in non-abused children. Evidence also points to the likelihood that abusive and neglectful parents do not adequately meet other needs of their children. The present study examines the play behavior of mothers and children in their own homes. Recent research has emphasized the relationship between parent-child play interaction and social competence in children (MacDonald & Parke, 1984).

The present study also examines the continuity of adult-child interactions in family day care settings and in the children's homes. The behaviors of mothers and their children are compared with the same children's interactions with their family day care providers. Several studies have compared adult-child interaction in child care and home settings. Rubenstein and Howes (1979) found that more adult-infant play and physical contact occur in child care than in the child's home. The 18-month-old infants in this study were more verbally responsive to their mother's talking than they were to caregivers. Mothers also used more controlling behaviors than did caregivers. Long and Garduque (1987) found that young children presented more instrumental help-seeking behaviors at home than they did in family day care. Mothers in this study were also more controlling of their children's behaviors than were caregivers.

Fourteen maltreated children, ages 1 to 3 years,and their mothers were recruited from one urban and one nearby suburban child welfare agency providing protective services to children. The children from these child welfare agencies were selected because they were referred to family day care programs as part of the family's case plan. Children were included in this study only if they were living in the home of their biological mother. All of the study children experienced physical and emotional neglect from their parents. Nine non-maltreated children and their mothers were recruited from two government subsidized family day care programs located in communities that were similar to the geographical areas served by the day care programs for maltreated children. Observations of all children were conducted in the maternal home at the same time they first entered family day care. Children were observed in the family day care home four to five weeks after entry in the program.

The Parent/Caregiver Involvement Scale (P/CIS) was used to measure the play interactions between mothers and their children and between family day care providers and the children in their care (Farran et al., 1986). The P/CIS was constructed to provide a global assessment of the amount, quality, and appropriateness of involvement between caregiver and children during play interactions. For the purpose of this study, the following scales were used: physical involvement, verbal involvement, responsiveness,

play interaction, teaching, control of children's behavior, positive statements, negative statements, and affective climate. In using the P/CIS, independent observers are asked to rate the caregiver from one to five, where one represents a low, and five represents a high -- on amount, quality, or appropriateness of a particular behavior. Inter-rater reliability tests were conducted on ten of the total 46 observations in this study, yielding coefficients ranging from .70 to .82 on individual scales. The Social Behavior Checklist was used to observe social behaviors of children with their mothers and caregivers (Shapiro & Ogilvie, 1978). Children were rated on the following behaviors: seeks attention from adult, seeks instrumental help from adults, imitates adult, and expresses pride in a creation or attribute. Tests of inter-rater reliability on 10 children in this sample yielded a coefficient of .80.

Analysis of variance and Scheffe contrast tests were used to determine if there were significant differences between the two groups of mothers and the two groups of family day care providers on measures of maternal and child interaction. Maltreating mothers were less responsive to their children than were non-maltreating mothers. They were also less appropriate than non-maltreating mothers in their responsiveness to children, their play behavior, and their use of controls on children. However, maltreating mothers did not differ from non-maltreating mothers on amount, quality, and appropriateness of physical or verbal involvement. The two groups of mothers did not differ in the amount or quality of play behavior and amount, quality, or appropriateness of teaching behavior. There were also no significant differences in amount of control on children or on use of positive or negative statements. Maltreating mothers were less competent than their family day care providers in many facets of interaction with children. However, there were no differences in interactive behavior between non-maltreating mothers and their family day care providers. Maltreated and non-maltreated children did not differ in any of the behaviors observed in their own home. Non-maltreated children rarely sought instrumental help from their family day care providers.

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DEVELOPMENTAL DISORDER/DELAY

The Identification of Specific Developmental Disorders *J. Rispens, T.A. Van Yperen*

For the classification of childhood disorders, the distinction between specific and general developmental disorders plays an important role in both theory and practice. The term specific developmental disorder refers to a childhood disorder in language, speech, motor coordination, or scholastic skills that cannot be explained in terms of mental retardation, neurological deficit, poor educational background, or, in the case of learning disabilities, lack of schooling (APA, 1987). Specificity, therefore, refers to the isolated nature of the disorder. Discrepancy is another key concept: there is a discrepancy with the expected level of development, given the child's intellectual capacity, physical condition, and amount of schooling. A general developmental delay or disorder means that the child lags behind in all or most of the developmental aspects. This distinction between specific and general developmental disorders could be important when it comes to treatment. There is some evidence that the prognosis for children with a specific disorder differs from that for children with a general disorder (Rutter, 1989). Although the concept of a specific developmental disorder is widely used in clinical practice -- the category "specific reading disorder" (dyslexia) is very popular -- both the reliability and the validity of the classification remain unsatisfactory (Rispens & Van Yperen, 1990). Therefore, classification systems such as DSM-III-R (APA, 1987) or MAS (Rutter, Shaffer, & Shepherd, 1975), which contain a number of categories of specific developmental disorders, need improvement. One of the problems inherent in these systems is that classification implies a go/no go decision: e.g., if a child has a language problem, the clinician has to decide whether this is a case of a specific language disorder; there is no in-between. Clinicians are often uncertain about their choice. In one of our research projects we argue that improvement of the system will decrease the clinician's degree of (subjective) uncertainty. We therefore collected data indicating the degree of (un)certainty with which clinicians classify children.

We developed a revised Dutch version of the MAS (Van Yperen, 1990). This classification system is in use in a great number of centers for medical day care in the Netherlands. The population of these centers consists of children aged 1 1/2 to 7, with psychosocial and medical problems. One of the adjustments we introduced was the possibility for clinicians to register their doubt by choosing an alternative category. Data of 917 children classified by 51 clinicians were collected. Doubt or uncertainty implies the choice of an alternative category. For each of the categories we computed the percentage of alternatives. Also, the type of alternatives that are chosen was noted.

It can be concluded that in 14% of the cases clinicians were uncertain about their choice. This seems rather high, and means that in about one of every seven cases there is doubt about the classification. It is interesting to note that not all categories have the same high percentage. In the case of categories 0 (no problem) and 4.9. (speech problems) the clinicians are more certain than in other cases. The data show that improvement (e.g., better descriptions of the categories, agreement about measurement procedures) is definitively necessary.

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A Home/School Collaborative Model for Preschool Children with Special Needs: Ten Years of Research Findings

Judith Bloch, John S. Hicks, Janice L. Friedman

Home/school collaboration and parent involvement in their children's education have been the cornerstones of Variety Pre-Schoolers' Workshop's (VPSW) philosophy and practice since the school's inception in 1966. This presentation focuses on the infrastructure of a preschool special education model and field research on a major component of this approach: parent/teacher assessment The VPSW collaborative model is based on four important components: 1) a "family-friendly school system"; 2) shared power; 3) parental participation in assessment; and 4) parental collaboration in goal setting and remediation. The model and the rationale on which The Five P's (Parent/ Professional Preschool Performance Profile) assessment process is based is supported in the literature by the works of Bronfenbrenner, Bagnato, Neisworth, Meisels, Lidz, Turnbull and Turnbull, and Dunst, among others.

The VPSW "family-friendly school" system -- an "open school" -- establishes the legitimacy of a parental presence in the building. Parents are always welcome to visit. One-way viewing mirrors and intercoms facilitate parental observation of their child in the classroom and at all therapies. A parent lounge provides a place for parents to find respite and to network. A series of orientation meetings introduces families to the school system and the concept and value of a home/school partnership. Parental involvement in assessment through the use of The Five P's helps parents become informed consumers who are better able to understand their child's strengths and needs, participants in the Individualized Educational Plan (IEP) meeting, and members of the multi-disciplinary team.

The Five P's is a shared assessment instrument for use with 2- to 6-year-old children with special needs who are functioning between 6 and 60 months. It is unique in several important aspects: 1) ratings are the responsibility of the child's two primary caregivers -- the parent and teacher; 2) ratings are based on the child's observed performance in two primary natural settings -- home and school; 3) the scales include both developmental skills and interfering behaviors; 4) the behavior items become the goals for the child's Individualized Educational Plan (IEP); 5) the scales are sensitive to behavioral change, i.e., they measure change over time; 6) the scales serve as a tool in parent education. The Five P's is a catalyst for home/school collaboration. It comprises 13 scales (458 items) covering six domains of development: Classroom Adjustment; Self-Help Skills; and Language, Social, Motor, and Cognitive Development. It provides a systematic method for collecting information regarding the child's current level of functioning in the classroom and at home. Judgment-based assessments are prepared by the child's two primary caregivers -- the parent and teacher. Both, simultaneously but separately, rate the child twice a year on observed performance. Their rating judgments are added to other clinical evaluations prepared by the multi-disciplinary team. This shared assessment process sets the stage for the next parent/professional task, the IEP planning conference, which leads to collaboration in remediation. Both parents and professionals come to the IEP conference prepared to discuss the evaluations and reach consensus about goals.

Research on The Five P's has focused on the quality of parent and teacher ratings and the value of their involvement in assessment. A series of statistical studies has been completed using samples from VPSW as well as from schools across the country. Results of these studies have been presented at national and local conferences and have been published in professional journals and publications. The Five P's research agenda has primarily focused on the reliability and validity of parent and teacher ratings of observed performance of young handicapped children. Early studies were completed on data from assessments on children at VPSW. The results led to a major revision of the items on The Five P's scales (1986). VPSW began to replicate the reliability studies in 1986 on a national sample of 370 young children with handicaps from California, Florida, Illinois, Indiana, Maine, and New

York. Cronbach Alphas obtained for parent and teacher ratings ranged from +.911 to +.956 and +.921 to +.959 respectively for each of the major Five P's domains. Test-retest reliability for parent and teacher ratings ranged from +.845 to +.914 and +.919 and +.940, respectively, for each of the major Five P's domains. The validity studies focused on concurrent validity and factor analysis. The concurrent validity study completed on a sample of 55 children with handicaps from VPSW compared parent and teacher ratings on The Five P's with their scores on other well-established, reliable, and valid tests: the Bayley Scales of Infant Development, the McCarthy Scales of Children's Abilities, and the Vineland Adaptive Behavior Scales. Parent validity correlations ranged from +.54 to +.72, and teacher validity coefficients ranged from +.48 and +.74. Factor analyses, completed on data from the 1986 national replication study of 370 children, demonstrated clear construct evidence that the developmental skills and interfering behaviors are distinct from each other. The scales generally cluster together in the way that The Five P's was theoretically organized when it was conceptualized. Current research on The Five P's is focused on a normalization study. The Five P's is being used by parents and teachers on a national sample of normally developing children. An analysis of the degree of agreement between parent and teacher ratings across the five major domains on The Five P's is also being researched.

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Characteristics of Mother/Child Interactions in Dyads with Developmentally-Delayed and Normally Developing Children

Michele Haney, M. Diane Klein

The dyadic relationship between mothers and their young handicapped children has become an increasingly important focus of both research and clinical programs in recent years. Interactions in these dyads have been described as intrusive and directive, as compared to interactions between mothers and normally developing children (Marfo, 1984). Directiveness traditionally has been seen as a negative trait (Schneider & Gearhart, 1988), implying a lack of maternal responsiveness and sensitivity; therefore decreasing maternal directiveness is the target of many intervention efforts. Recently, however, a few investigators have suggested that maternal directiveness may be tempered in some cases by a sensitivity to the child's interest and involvement in the interactive situation (Crawley & Spiker, 1983; Schneider & Pelland, 1988). That is, it may be possible for some mothers to act in ways that are both directive and sensitive when their children's behavior warrants this, while other mothers may be only directive, independent of their children's behavior. The separation of directiveness and sensitivity into orthogonal characteristics represents an important theoretical construct with practical implications, yet few studies of mother-child interactions have considered these as separate dimensions.

In this paper we present the results of a study in which patterns of interaction between a group of 4-year-old developmentally delayed children and their mothers and a mental-age-matched group of normally developing 3-year-olds and their mothers were examined. The study explores maternal directiveness and sensitivity as potentially separate components of mothers behaviors and examines the influence of child characteristics on these separately as well.

Thirty Caucasian, middle-class mothers were videotaped in their own homes as they interacted with their children in a semi-structured freeplay activity. Half of the dyads involved normally developing children; the other half had children with mild to moderate developmental delays of unknown etiology. The videotapes were later coded by two independent raters using a system that rates 10 child behaviors, 10 maternal behaviors, and one dyadic quality. The codes were examined for differences between groups as well as relationships among the variables both within and between groups.

Several patterns emerged. First, despite the mental-age match, the children in the two groups were found to differ on a number of behaviors specific to the interactional situation. In general, delayed children were less capable in all aspects of play than their non-delayed peers. Mothers appeared to respond to these differences. Mothers of delayed children as a whole and mothers of children rated low on certain play behaviors, regardless of their developmental status, tended to be rated high on the directiveness dimension. Rating of responsiveness, on the other hand, bore little relationship to child behaviors. Simply put, directiveness changed in relation to the appropriateness of child behaviors; responsiveness remained relatively constant. Mothers rated high on responsiveness were those whose level of directive behaviors (high or low) appeared to represent an appropriate response to their children's needs.

Such findings have important implications for early intervention efforts with developmentally-delayed children and their families. For the mothers in this study, responsive directiveness seemed to keep the children engaged in the interactive activity when the children's interest or ability flagged. Such maternal behavior may provide the optimum climate for development, especially when children need additional assistance. Rather than decreasing directiveness, parent-focused interventions should concentrate on increasing sensitivity.

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The Family's Construction of its "Ecocultural Niche" and its Instantiation in Activity Settings With The Developmentally Delayed Child

Phyllis Schneider, Ronald Gallimore, Thomas B. Weisner

Just as social scientists search for meaning by constructing theories about the relations among events, so do families when they seek meaning and structure in their lives. This is also true of families of children with developmental delay: Like all families, they exploit niche pressures and opportunities, and, together with their own goals and beliefs, construct an ecocultural niche they believe will allow them to achieve for themselves and their child what they most value. Thus, in order to understand what happens in face-to-face parent-child interaction when the child has developmental delays, we must have some understanding of the ecocultural constraints and resources that shape the niche, which in turn influences the way family members interact.

Ecocultural research has identified a set of ecocultural variables (observable in all cultures) that can affect the child both distally (e.g., the subsistence base and community health standards affect the family's domestic routines) and proximally (e.g., persons available for child care and special child care needs of the DD child will directly affect face-to-face interaction). Ecocultural theory proposes that ecological/cultural effects are mediated through the activity settings of the daily routine (Weisner & Gallimore, 1985). Activity settings provide opportunities for children to learn and develop through forms of mediated social learning that are embedded in goal-directed interactions (Schneider & Gearhart, 1988; Tharp & Gallimore, 1988; Weisner, 1984). For the most part, children's activity settings are everyday activities rather than a deliberate curriculum; they are homely and familiar parts of a family's day: preparing meals, eating dinner, getting ready for school, and dozens of mundane settings in which adult-child interaction is embedded. They can be deliberate teaching opportunities, however. For example, many families (with and without DD children) create storybook times and other activities for the express purpose of promoting cognitive and linguistic development.

A combination of ecocultural niche theory and the theory of activity is necessary to understand how ecocultural niche factors ultimately have an effect on development. Activity theory outlines the characteristics of an activity setting that are essential to know in order to understand an activity and its consequences: 1) who is present; 2) their values and goals; 3) what tasks are being performed; 4) why they are being performed -- the motives surrounding actions; and 5) the "scripts" that govern interactions, including those that shape and constrain the child's participation. Ecocultural niche theory suggests that although many ecocultural factors are influential in shaping the child's activity settings, the most powerful will be those related to these five characteristics. These characteristics -- involving who is present with a child and what they are doing (and why) -- are a perceptible instantiation of ecology and culture.

Activity setting, as a unit of analysis, offers a criterion for the selection of ecocultural variables that potentially influence child care and child development: Ecocultural variables can be selected and hierarchically ordered based on their hypothesized or demonstrated effects on the five characteristics of activity settings. This selection and ordering criterion permits development of hypotheses about the relative influence of differing ecological influences.

Types of data and methods of data analysis in the two major components of the project are outlined: the accommodation component and the interaction component. Variables from the accommodation component were selected for comparison with interaction variables, on the basis of their likely relation to activity theory characteristics. Scores on variables from the two components were then examined for correlations. One accommodation variable that was associated with both other accommodation variables and

the interaction variables, and which we believe accounts for much of the findings in both components, was what we call the child's "hassle level," or amount of disruption to daily routine that the child causes due to behavioral, medical, or other factors. Hassle level was correlated with child care structures and arrangements, accessibility of services, family subsistence, role of spouse, domestic workload of primary caretaker, and child play groups. In the interaction sequence, hassle level was related to the way that dyads structured the task, i.e., whether mother took responsibility for the storytelling or requested that child to help do so. It was also related to length of interaction and child's responsiveness and engagement in the task. Thus, hassle level related to family accommodations to the child in relatively distal domains, as well as to mothers' adjustments of an activity to the child in proximal interaction.

Correlations were also found between interaction variables and accommodation variables in the following categories: evidence of goal implementation, expressed beliefs about child development, and family structure. These in turn can be related to hassle level: when a child is highly disruptive, families are more likely to take things one day at a time, believe that they have less effect on child development, and arrange an activity with the child so as to get through it quickly and without tantrums.

We conclude that the hassle level of a child with developmental delays drives both the relatively distal factors of accommodation and the more proximal factors of family members' adjustments in interaction with the child. This has important implications for intervention programs that focus on changing behaviors of family members. We predict that maintenance of newly acquired interaction behaviors is dependent on how congruent they are with accommodations that sustain the daily routine. Families are unlikely to maintain these behaviors if they are not congruent with these accommodations and are not sustainable in terms of daily routines, family resources, or child hassle level. The idea that interactions are influenced by the ecocultural niche is not new. What ecocultural theory offers is a principled basis for empirically assessing the distal factors that impinge on the daily routine and its developmentally sensitive interactions. An important aspect of this assessment is attention to the social construction efforts of families.

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The Siblings and Families of Dependent Handicapped Children *Beatrice Guilbault*

In nature, small and often imperceptible changes can affect the subsequent development of a system (Gleick, 1987). Families are systems in which the behavior of one family member interacts with and affects the behavior of other members and of the family as a whole (Bowen, 1978; Constantine, 1987; Kantor & Lehr, 1976; Minuchin, 1974; Satir, 1964). People change their family members and the structure and functioning of their family by what they are and what they do. Families grow through a series of somewhat predictable developmental stages (Carter & McGoldrich, 1980, 1988; Duvall, 1977). These stages are affected by family roles (Feldman & Feldman, 1975), interactions among family members (Falicov, 1984, 1988), family styles (Combrinck-Graham, 1983), the illness of a family member (Rolland, 1987), and stress (Lewis 1986). A change in the individual life cycle of one family member affects the family's life cycle and the individual life cycles of parents and siblings. If a child does not, because of a handicap, develop independence according to the normal pattern, that child's family does not develop as a unit or interact in the expected ways. The lives of other family members, both parents and siblings, are altered as they adjust to the needs of the handicapped child.

Reports by family members (Brown, 1990; Callahan, 1987; Featherstone, 1981; Greenfeld, 1972, 1978, 1986; Hart, 1989) and accounts by professionals (Ablon, 1988; Coppersmith, 1984; Ferrari & Sussman, 1987) indicate that changes occur in the families of handicapped children. These and other studies (Carr, 1988; Harvey & Greenway, 1984; Seligman & Darling, 1989; Winton, 1986; Wright, Matlock, & Matlock, 1985) show the changes to be both positive and negative. However, a study by Byrne, Cunningham, and Slopes (1988) reports no significant difference between families of children with Down's syndrome and a normal control group.

Age, birth order, and sex of the normal siblings (Breslau, Weitzman, & Messenger, 1982; Rodger, 1985), and parental response to the handicapped child (Seligman, 1983) can influence the effect of a handicapped child on normal siblings. The oldest sister, the child closest in age to the handicapped child (Rodger, 1985), and younger brothers of a handicapped male (Breslau, Weitzman, & Messenger, 1982) are most likely to suffer adverse effects. The level of social support affects marital adjustment and physical illness in caretaking parents (Petersen, 1984).

The families I am studying report both positive and negative effects from the long-term presence of a dependent handicapped person. Siblings, particularly older sisters, report increased caretaking duties and other responsibilities at home, although not all call this a burden. Siblings also report decreased attention from parents. Parents report isolation, feeling overworked, and alteration of their life plans. Some families feel that the presence of the disabled person has added something positive to the family -- "someone there, that they know is always going to be there for them, no matter what" (Guilbault, 1990).

To cope effectively with the demands of their handicapped child, parents must resolve their disappointment at the loss of their dreams (Brodsky & Niedorf, 1986), their guilt at their supposed role in causing the disability, and their anger at the extra burdens and the changes in their lives. To plan realistically for the future, parents need information about how disabled their child is likely to be and what kinds of supervision and services the child is likely to require in adolescence and adulthood.

Much therapeutic work with the handicapped child can be done by training family members (Hanzlik, 1989; Menolascino & Fleisher, 1991). Wallander and Varni (1989) report that handicapped children with high social support from both family and peers are better adjusted than children with support from only one of these groups.

Siblings need help dealing with their resentment about the special treatment given to the disabled child (Post, 1991), their loss of a normal sibling and family life, their social discomfort and embarrassment because of the different appearance or strange behaviors of their disabled sibling, the added child care burdens placed on them, and the increased household chores they must perform to free their parents for caretaking. Siblings often need information, as do the handicapped child and the family, about the nature of the disability.

Because positive thinking contributes to mental health (Taylor, 1989), all family members can benefit from help to see the strength and the good in their family situation. It is evident, from published research and from my work, that Head Start programs, respite programs, and other family interventions must attend to the needs of parents and siblings of a handicapped child, particularly to the needs of the caretaking parent, the oldest girl, younger brothers of males, and the child nearest in age. This is necessary for the well-being of the family members and because of the effect of family stress on the handicapped child (Guilbault, 1991). Because the life cycle of the families of dependent handicapped children and the interactions among family members do not follow the usual patterns, professionals must avoid applying their usual models of pathology to these families.

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Correlates of Social Disadvantage: Development and School Achievement at 8 Years *Nancy K. Klein*

The adverse consequences of social risk have been associated with developmental, cognitive, and learning problems (Farran, Haskins, & Gallagher, 1980). Kopp (1983) has shown that children at greater social disadvantage have lower IQ scores, more difficulty with cognitive tasks, and lower achievement in school. The effects of social risk on development have rarely been explored using epidemiological sampling methods. Use of such methods permits the assessment of the relationship of urban and suburban school factors to learning, the risks of social disadvantage to school achievement, and the response of schools to children's learning problems.

The primary purpose of this report was to determine the effects of social risk using a four-factored risk index for children at 8 years of age in cognitive development, school achievement, and behavior. We were also interested in exploring the relationship of social risk to the provision of special education services and repeating a grade. Since the passage of P.L. 99-457 in 1986, mandating early intervention services for handicapped and at-risk infants and toddlers, there has been increased use of multiple-factored risk indexes to solve the problems of over- or under-identification of children at risk associated with single-factor approaches (Meisels & Wasik, 1990).

This report addresses several research questions: 1) How does the performance of children in five social risk groups compare on measures of IQ, reading, spelling, and math achievement, and visual motor skills at 8 years of age? 2) Does parent-rated behavior of children in five social risk groups differ significantly at 8 years of age? 3) Do children at high risk due to social

disadvantage at 8 years of age repeat a grade more frequently and receive more special education services than children not deemed high-risk?

The 361 subjects are a geographically based sample of full-term children born in 1977-1979. This sample was randomly selected from the total population of children born in and living in eastern Cleveland attending public and parochial schools. Fifty schools were randomly selected through assignment to six strata on the basis of racial composition (Black vs. other) and median family income (high, medium, low) of the schools' catchment area. Due to extensive busing in Cleveland Public Schools a simple random sample of children living on the east side of Cuyahoga County was selected.

In order to assess the effects of social risk, a four-factor risk index was created, using variables that have been found to be highly related to IQ. Using a scale of 0-4, maternal level of education was coded 0 = < high school, 1 = high school or more; race was coded 0 = white, 1 = Black or other; marital status, 0 = married, 1 = not married; and school was coded urban =1, suburban = 0. This grouping resulted in 96 (27%) children in group 0, lowest-risk group; 56 (16%) in group 1; 77 (21%) in group 2; 102 (28%) in group 3; and 30 (8%) in group 4, the highest-risk group.

Outcome measures included the WISC-R, three subtests of the Woodcock Reading Mastery--Revised (Passage Comprehensive, Word Attack, Word Identification), the math cluster of the Woodcock Johnson Psychoeducational Battery Math Achievement, and the Bender Gestalt. Data regarding grade retention and special education services was obtained from parents, who also rated their children's behavior using the Child Behavior Checklist.

The results indicate that on all outcome measures, there were significant differences between the lowest two risk groups and the other three groups. Furthermore, for verbal IQ, there are 31 points difference between the lowest- and highest-risk groups. In the areas of reading, spelling, and math, there are 20 points difference between the lowest- and highest-risk groups. In the area of visual motor skills, the mean score (scored in terms of errors) for the highest-risk group was 2 1/2 times as high as the low group. Significant correlations ($p<.001$) between social risk and outcome measures are as follows: VIQ $r=-.60$; Math $r=-.49$; Reading Cluster $r=-.48$; Spelling $r=-.44$, and visual motor skills $r=.33$. Four children (4.2%) repeated a grade in the lowest-risk group; 8 (14%) in group 1; 10 (13%) in group 2; 23 (23%) in group 3; and 11 (38%) in group 4. Only 3% of group 4 children were in special education. No significant differences were found for parent-rated behavior. In order to determine the influence of school status on predicting verbal IQ, we examined the four risk variables in a hierarchical multiple regression. Primary risk factors of maternal education, race, and marital status were entered first, yielding an R of 3.88. School status entered at the second step added 1.2% of the explained varience, which was significant.

This randomly selected epidemiologic study of 361 children provides a unique opportunity to study the effects of social disadvantage on development, behavior, and school performance at 8 years of age. The correlations for each of the single-risk variables were much weaker than those using the four-factor index. On all measures, there is a descending order of performance from the lowest risk to the highest risk. The finding that 38% of children in the highest-risk group repeated a grade while only 3% of them were receiving special education services raises serious questions about serving children in urban settings. These findings document the usefulness of a four-factor risk index using both sociodemographic and school variables to identify those children most in need of early childhood intervention and modified education for children at highest social risk.

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ABUSE AND NEGLECT

Conception of Abuse: Legal vs. Research Definitions and Policy Implications *Karen R. Rattenberg, David MacPhee*

Reviews of psychological and legal issues related to child maltreatment universally lament the lack of consistency in how it is defined (e.g., Giovannoni, 1989; Meriwether, 1986; Wyatt & Peters, 1986), yet it is not unusual to cite only a handful of studies in defense of this conclusion. How little consensus really does exist? Are there core elements of definitions that are agreed upon with some variation in specifics? Broad generalizations about the lack of consensus typically focus on one type of maltreatment as defined in statutes (e.g., Corson & Davidson, 1987) or include only a few empirical studies. Also, most comparisons of legal versus research definitions examine philosophical assumptions (e.g., Aber & Zigler, 1981), but do not analyze how such perspectives are typically operationalized. Thus, our first objective is to empirically document variations in how child maltreatment is defined in the research literature and state statutes.

If definitions of abuse are ambiguous and inconsistent, might this lack of clarity account for variations in research findings, judicial decisions, and reporting and substantiation rates? Several studies have found that prevalence rates of sexual abuse in

epidemiological surveys varied as a function of definitional elements such as the type of contact and use of coercion (Fromuth & Burkhart, 1987; Haugaard & Emery 1989; Russell, 1983; Wyatt & Peters, 1986). Others have argued that state variations in incidence statistics similarly are due to differences in how maltreatment is defined and reported (Johnson, 1986; Giovannoni, 1989). Given what is known about variables that influence reporting (Zellman, 1990) and judicial discretion (Meriwether, 1986), it is plausible that such incidence rates will vary with the specificity of statutes. However, this hypothesis has yet to be tested, which is the second objective of our study.

Using content analyses, we parsed specific elements of both research and statutory definitions of child maltreatment. Research definitions were sampled from empirical articles published between 1985 and 1990 that included maltreated individuals. After eliminating 52 duplicate samples, 191 studies remained; 31 of these inferred abuse retrospectively and 18 failed to specify the type of abuse. In 44% of the studies, substantiated cases of abuse were used but no definition of abuse was given. We also examined all state statutes (civil, criminal, and reporting codes) related to child maltreatment (sexual, physical, psychological abuse, and neglect). The initial content codes were extracted from conceptual discussions of definitional issues, and were supplemented by specific elements mentioned in the operational or statutory definitions. If the author referred to a different source for a definition, this source was content analyzed. Interrater reliabilities were 93% for the research definitions and 95% for the statutes. However, we found that the statutes varied in specificity as well as content, so we also rated the precision with which the four major types of maltreatment were defined, from 1 (no mention of that type of abuse) to 8 (specific parental acts and specific child harms). Interrater reliabilities (Spearman's r) ranged from .74 to .96. Finally, we collected data related to states' social well-being (e.g., economic duress, health indicators, family structure, and resources for child protection), which, in addition to variations in statutory definitions, might predict reported and substantiated abuse rates (American Humane Association, 1988).

Each type of maltreatment was defined by approximately 10 different elements. For example, physical abuse could be generically characterized as intentional use of physical force by a parent or guardian who, in violation of community standards, inflicts pain or physical injury that endangers the child's health or welfare. In no case was an element mentioned universally, although some were common: age of consent in statutory definitions of sexual abuse (88%), inflicting pain or injury in physical abuse (82-90%), damage to the child's self-worth in research definitions of psychological abuse (85%), and deprivation of necessary resources in neglect cases (78%). The divergent empirical versus legal perspectives are illustrated by the relative emphasis on victim-perpetrator age differences, coercion, and physical contact in sexual abuse, which reflect the developmental orientation of researchers, and the emphasis on observable harms, as opposed to parental acts, in statutory definitions. None of the analyses revealed a relation between abuse rates and features of statutory definitions. States with high maltreatment rates were no more likely to include a given element in their codes than states with low rates; neither did the ratings of definitional precision predict abuse rates. However, some of the indices of social well-being were correlated with abuse incidence (all r's < .37), particularly suicide and divorce rates, and expenditures on health.

What might explain the general lack of consensus in these definitions? First, professionals attempting to define abuse approach the problem from very different philosophical and practical orientations (Aber & Zigler, 1981). Also, imprecise statutes permit greater discretion in considering parental practices within family and cultural contexts when making decisions about the disposition of cases. However, legal scholars have observed that vague definitions infringe upon the right to equal treatment by permitting judges to make decisions on the basis of subjective considerations (Valentine et al., 1984) and invite violations of family autonomy and privacy. From a research perspective, imprecise definitions or sole reliance on undefined substantiated cases may contribute to a lack of replication. Thus, we advocate the development of more precise, integrative definitions. We propose that a multi-axial model be adopted, which would be an extension of work by Giovannoni (1989) and Aber and Zigler (1981). Each type of abuse would be a separate axis consisting of multiple elements or items. These items would be specific acts, child harms, severity, and possibly etiology and context. Benefits of this model include recognition that multiple types of maltreatment are common, the ability to compare research samples, and greater specificity in terms of reporting laws and establishing thresholds for prevention and intervention efforts.

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Criminal Prosecution of Child Sexual Abuse *Ellen Gray*

There is much interest across the country now in reforming the criminal system as it deals with child sexual abuse. Some of the reforms of the recent past, however, are turning out to be less than useful. Based on the premise that meaningful reform cannot be carried out without adequate baseline information, the Child Sexual Abuse Cases in the Criminal Justice System research project studied 619 cases of sexual abuse in eight jurisdictions across the country between September 1986 and August 1987 for the purposes of describing the case load and identifying patterns in the handling of these cases. Data, both quantitative and qualitative, were collected by record review and courtroom observation. Descriptive statistics are presented and bivariate cross-tabulations were tested for significance using the chi-square test.

The criminal system in these study jurisdictions received cases with characteristics that for the most part paralleled the profile of child sexual abuse in the literature. However, the cases that reach the criminal justice system are unique in some ways. For example, in 1986-1987 courts in these jurisdictions received four cases with girl victims for every case with a boy victim. General estimates of victimization by gender would indicate that the criminal system is slightly skewed toward cases with female victims. Most of the victims were white, but the number of Black victims and defendants was disproportionate to the percentage of Blacks in the jurisdictions represented. One key to the disparity seems to be the fact that the Black defendants in these jurisdictions allegedly committed more serious offenses, and more of the Black defendants had a criminal history.

Patterns of age and victim-abuser relationship seem to be related primarily to access to the children. More defendants were between 27 and 37 than any other 10-year range, and the most common age for defendants was 35. Theoretically, there is increased access to children of vulnerable age during this 10-year period. The abusers were people known to the children. Non-custodial acquaintances made up the largest single group of alleged abusers. Second in preponderance to acquaintances were the victim's stepfather or her mother's boyfriend. However, perpetrators with different relationships to their victims abused children of different ages. In general, most biological and step relatives abused children under 11 years old. Custodial and non-custodial acquaintances abused younger and older children in nearly equal proportions, and strangers abused children 11 and older much more often.

Although there are countless permutations of the separate abusive behaviors that occurred in these cases, four simple case types were developed for analytic purposes, and these show some interesting patterns. In general, younger children are those most often fondled only, and older children are most often the victims of intercourse only. Oral-genital contact and anal penetration offenses as isolated behaviors occurred much more often to the younger than the older children. Case types are strongly related to the relationship of the perpetrator to the child. Biological and stepfathers tend to be associated with the cases of fondling; custodial and non-custodial acquaintances with intercourse and attempted intercourse; and strangers with the non-touching offenses. Case type was also related to race in this sample. Over half of the Black defendants were alleged to have committed intercourse or attempted intercourse, but less than one-quarter of the white offenders were accused of attempting or effecting intercourse with their victims. The predominant case type associated with white offenders was fondling. There is no discernible pattern to the length of time sexual abuse occurred before it was brought to the attention of the prosecutor's office, which ranged from one day to 11 years. Child disclosure was usually the precipitant of referral to the courts, and this disclosure was more likely to take place at puberty than at other points in a child's life, regardless of the duration of the abuse.

Handling of these cases is somewhat different by jurisdiction. One difference is the length of time cases take to transverse the system in the jurisdiction: from a median duration of 41 days in the Florida counties to a median of 301 in St. Louis. From a legal standpoint, these cases did not pose an easy task for the prosecutors. In the majority of the cases there was no medical evidence, nor was there an eyewitness to the events. In over half the cases, there was neither. Charges were not filed on over one-third of the cases presented to district attorneys' offices for prosecution. Diversion programs were in place in about half of the study jurisdictions. Trials resulted from 8.4% of the cases in jurisdictions with diversion programs, and 10.8% in jurisdictions where diversion was not an option. Only about half as many Black defendants were diverted to treatment as white defendants, but this is partially explainable by the fact that far fewer cases were diverted to treatment when the defendant had criminal charges in his past. However, within the group of defendants with prior charges, Blacks were diverted to treatment less often than whites.

Most of the cases were pled, either to original charges or, slightly more often, to negotiated charges. A large proportion of the cases where pleas were taken to the original charges were cases of fondling, and the preponderance of the plea-bargained cases were those with allegations of intercourse and attempted intercourse. Cases with the younger children were dropped and plea bargained more often, received pleas to original charges and proceeded to trial less often. A larger proportion of the cases where the victim was 5 or 6 years old, versus either younger than 5 or older than 6, went to trial. Approximately half the convicted defendants with no prior affiliation with the criminal system went to jail. However, over three-quarters of the defendants with criminal histories were incarcerated. Defendants who pled guilty to, or were convicted at trial of intercourse or attempted intercourse, were more likely to go to jail.

In general, procedural reform in child sexual abuse trials, particularly innovation of a technical nature such as videotape, closed circuit television, and even anatomically complete dolls, has not revolutionized the prosecution of child sexual abuse cases that go to court in these jurisdictions, nor are prosecutors being thwarted in their attempts to use new technology. Instead, the child sexual abuse cases tried in court are being handled, in the main, like all other criminal cases, while taking into consideration the particular limitations and sensitivities of the child witness.

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The School Performance of Abused and Neglected Children *John Eckenrode, Molly Laird*

Numerous studies have begun to document the deleterious role of child abuse and neglect on cognitive and social development. Studies with infants and preschool children (e.g., Egeland & Sroufe, 1981; Cicchetti et al., 1987) have shown maltreated children to score more poorly than non-maltreated children on measures of attachment, general intelligence, language development, effectance motivation, and dependent relations with novel adults. Small-scale longitudinal studies that have followed maltreated infants into early school years also find these children more likely than non-maltreated children to display low self-esteem, aggression toward peers, acting-out behavior, withdrawal, and non-compliance. Small-scale cross-sectional studies with older children (e.g., Christiansen, 1980) have also suggested that maltreated children, compared to their non-maltreated peers, perform worse on measures of academic achievement such as grades and test scores. Most of these latter studies, however, have utilized small and unrepresentative samples of maltreated children, employed inadequate control groups, or failed to employ multivariate statistical techniques that would allow for the testing of competing hypotheses concerning apparent educational impairments among maltreated children.

This paper presents findings from a study designed to address some limitations of prior research on the academic performance of maltreated children. It had four interrelated goals: 1) utilizing a representative sample of maltreated school-age children and a matched group of controls to quantify the impact of maltreatment on several educational outcomes such as grades, standardized test scores, and grade repetition; 2) to rule out alternative explanations for differences found between maltreated and non-maltreated children; 3) to test for the effects of variables, such as gender or maltreatment type, which may moderate the effects of maltreatment; and 4) to explore possible mediating processes, which may help account for the deleterious effects of maltreatment on school performance.

The study took place in a small city in New York State. The population of interest were 8,600 children attending public schools (grades K to 12) in 1987-88. The records of the New York State Child Abuse and Maltreatment Register were searched for reports of maltreatment for each of these children. This search yielded a group of 1,239 children (14.5%) who had experienced at least one known incident of maltreatment at some time in their lives. This paper focuses on 420 maltreated children (neglected, physically abused, or sexually abused) sampled from the total group of maltreated children who were in regular classrooms (i.e., not in special education classrooms). These children were matched with a group of 420 children of the same gender, grade in school, school, residential location, and, when possible, classroom. Social service records were used to derive measures of maltreatment type and timing, as well as whether each family (maltreated and control) was receiving public assistance. School records were the source of measures of academic performance, as well as other variables discussed in this paper, such as grade repetition, school transfers, and home moves.

For children taking standardized tests (Iowa tests) within the last two years (primarily the second through ninth grades), maltreated children scored significantly lower than their non-maltreated peers on reading and math ($p<.001$). These effects remained significant when the public assistance status of the family was controlled, indicating that these effects were independent of the effects of poverty. Maltreatment did not interact with gender or public assistance status in affecting these outcomes, but effects did vary as a function of the type of maltreatment. Neglected children generally had the lowest scores, followed by physically abused children. The scores for sexually abused children did not significantly differ from the non-maltreated children. Data on grades conform to these general findings, with maltreated children receiving significantly more C's and D's and fewer A's and B's than the comparison group. As with test scores, maltreatment had an effect independent of being on public assistance. Neglected and physically abused children had significantly lower grades than controls, who did not differ from the sexually abused children.

Maltreated children were also much more likely to repeat a grade than non-maltreated children. For example, 38% of maltreated children repeated at least one elementary grade, whereas the figure was 20% for non-maltreated children ($p<.001$). This effect remained significant after controlling for public assistance. The effect of maltreatment on grade repetition was significant for both boys and girls, although boys overall tended to repeat more. As with test scores and grades, neglected and physically abused children were more likely to repeat than were the controls, while the proportion of sexually abused children repeating did not differ from the non-maltreated group. In addition to documenting the overall impact of maltreatment on academic outcomes, we have examined residential moves and school transfers as potential intervening processes between maltreatment and academic performance. Some evidence was found to support such a model when predicting standardized reading scores, reading/English grades, and grade repetition.

This study represents the largest, most well-controlled study of the effects of maltreatment on academic performance to date. It provides clear evidence that maltreated children perform more poorly in school than similar non-maltreated peers, but that significant variation exists across children experiencing different types of maltreatment. We have begun to explore possible mechanisms for these effects and will in future analyses further specify the nature of these effects, such as when they are most likely to appear in the child's academic career. The results also have policy implications for maltreated children within public school systems. For example, maintaining continuity in the child's school environment may help offset some deleterious effects of maltreatment.

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Children's Perceptions of the Risk of Sexual Abuse

Janis E. Jacobs, Patricia Hashima, Mary Kenning

Recent evidence of the widespread nature of sexual abuse (Finkelhor, 1979; Russell, 1884; Wyatt, 1986), and dramatic media coverage of particular cases have led to the proliferation of prevention programs aimed at preschool- and elementary school-aged children. Despite the number of such programs, they are more likely to be based on untested assumptions (Repucci, 1987) and clinical anecdotes (Conte, 1984) than on empirical evidence from rigorous studies. One of the assumptions that underlies most sexual abuse prevention programs is that children are unaware of the risk of being sexually molested. Therefore, a major goal of the programs is to increase children's awareness of risk. Research to date has not examined children's perceptions of the risk of sexual abuse and how those perceptions change following participation in a prevention program. The goals of our study were to assess children's perceptions of risk before and after participation in a prevention program and to measure differences in accuracy of risk of sexual abuse depending on the situation and ages of the children.

Subjects for this study were 47 second graders and 27 sixth graders from a small midwestern community. Children participated in two risk-perception tasks. First, children were asked to estimate the base rates of positive and negative events (including sexual abuse) for children their age. Second, children ranked the risk of sexual abuse occurring in eight drawings portraying different situations involving a child and an older person. The situations differed on location (public vs. private), familiarity (stranger vs. known adult), and age of perpetrator (adolescent vs. adult).

Children's pre-intervention estimates of the base rates of unwanted touching ranged from 33% to 37% (depending on the perpetrator), suggesting that their perceptions of risk are not dramatically inaccurate before participation in the program. Comparisons of children's pre-and post-prevention program estimates of base rates revealed significant increases for the items concerning touching by a stranger (t (67)= -2.04, $p<.05$) and touching by a familiar adult (t (67) + -2.20, $p<.05$), suggesting that the program increased children's perceptions of the base rates of being touched. No significant difference was found for children's pre-and post-prevention program base rate estimates of unwanted touching by parents. A significant interaction between time of test and age (F (1.64)=7.97, $p<.01$) disclosed that second graders' estimates decreased after the prevention program. We did not find any significant interaction between time of test and age for estimates concerning touching by a familiar adult. In analyzing the rank ordered data, we found that children ranked private situations as significantly more dangerous than those with familiar adults (F (1.70)=34.52, $p<.001$), and children ranked situations portraying adults as more dangerous than those portraying adolescents (F (1.70)= 15.66, $p<.001$).

Our findings suggest that participation in a sexual abuse prevention program is likely to increase children's estimates of the risk of sexual abuse. However, children's perceptions of risk are not dramatically inaccurate before participation in a sexual abuse prevention program. Furthermore, younger children's estimates of abuse base rates show greater increases after participation. These findings have important implications for policy and program planning. They suggest a need to reconsider the goal of increasing children's awareness of the risks of sexual abuse. More appropriate goals may be to focus on children's perceptions of risk on situational factors -- letting them know they are more at risk in a private situation than in a public situation, and from adolescents and those familiar to them than from older adults or strangers.

Impact of Investigation for Children Referred to Child Protective Services and Assessed Low Risk

Diana J. English, Kathy Sullivan-Gerke

In the past five years, over 30 states and/or county child welfare systems nationwide have adopted formal risk-assessment models in their Child Protective Services (CPS) programs. In 1987, Washington State adopted a formal risk-assessment model to be used in the assessment of child abuse and neglect allegations. The risk model included 32 risk items that group into seven overall factors. The seven factors are child characteristics, severity of abuse, chronicity, caretaker characteristics, parent-child interaction, environmental characteristics, and perpetrator access. The 32 individual risk items that comprise the seven overall risk factors are rated on low-, moderate-, or high-risk rating, and there are assignment of risk at intake guidelines for overall assessment of risk. In 1988, Washington State funded three pilot sites to develop a "continuum of care" pilot project. The purpose of the project was to assess and fill service gaps in three communities. In these three sites, community-based services were developed to provide "less intrusive" services to Child Protective Service cases classified as low risk by the risk-assessment model. In 1988, the National Center on Child Abuse and Neglect funded a research project to study the impact on children receiving differential levels of service. The study addressed questions such as: Were the outcomes different for low-risk children served by CPS compared to children served by community-based agencies? Can staff accurately assess low risk at intake? Were there differences in re-referral and/or reoccurrence rates for the children receiving traditional child protective services compared to community-based assessment and service delivery? What are the characteristics of children classified as low risk for the reoccurrence of serious child abuse and neglect? In Washington State, as in other CPS programs nationwide, children who are at risk of "cumulative harm," compared to at risk of imminent harm, tend to be excluded from the system.

The findings from an 18-month study tracking outcomes for 1,600 children referred to Child Protective Services who were either screened-out or classified as low risk for a future referral of abuse and/or neglect is presented. The primary outcomes were re-referral and reoccurrence. Within-site and between-site comparisons were made. Frequencies, chi-square, and logistic-regression analyses have been completed. A discussion of factors that are predictive of re-referral of child abuse and neglect are included. The Children's Services Research project has been conducting research on risk assessment for three years. Other relevant findings that could be presented include findings on implementation issues, reliability, and cultural sensitivity of particular risk factors.

LOW BIRTHWEIGHT INFANTS/OUTCOMES

The Breathing Bear: Early Intervention for Premature Infants

Evan W. Ingersoll, Evelyn B. Thomas

Approximately 10% of all newborn infants, more than 150,000 babies each year, are born prematurely. Advances in neonatal and perinatal medicine have reduced mortality among premature babies, but morbidity has changed little in recent years. As a consequence, premature infants as a population face the highest risk for a wide variety of physical and mental deficits and developmental disabilities. Despite high risk, there is a large degree of variability in outcome for these infants. It is now generally accepted that early neural trauma can be exacerbated or counteracted by environmental circumstances from the earliest days of life: a major task for research in early intervention with prematures has been to define the parameters of such circumstances and apply them on an individual basis to the premature infant.

A review of previous early interventions with premature infants reveals two major theoretical approaches to the premature infant: 1) those that provide some form of replacement stimulation, which the premature infant is deprived of by the fact of early birth, and 2) those that provide interventions or stimulation that typically apply to the full-term newborn as supplemental stimulation. In the first category, interventions have provided stimulation adapted from the sensory environment of the uterus, or from other aspects of the prenatal environment. In the second category are interventions adapted from the full-term model, in which additional stimulation in the form of handling, cuddling, or enriched sensory environments is provided to the premature infant.

Recent research has shown that premature infants can have decompensatory reactions to even routine handling. It is clear that whatever intervention strategy is taken for these vulnerable infants, the possibility of overstimulation must be taken seriously; given the variability of response to stimulation and stressors among prematures, this is a formidable problem. We have proposed an alternative model for intervention with the premature infant, which incorporates a view of the premature infant as possessing a unique set of capabilities and stimulus needs, and which allows for the individual titration of stimulation according to those needs. This model is grounded in the physical principle of entrainment and the importance of rhythmic stimulation as an early intervention, and incorporates two vital principles: 1) it provides rhythmic stimulation that is biologically relevant to the infant and is individualized to a major biological rhythm of each infant, and 2) it enables the premature infant to self-regulate the timing and duration of stimulation. This intervention is in the form of a "breathing" teddy bear, which is placed in the isolettes of healthy, growing prematures for the infants to touch, cuddle, or ignore.

Two independent studies have been completed to examine the effects of the breathing bear. In these studies, a small, blue sheepskin bear containing a rubber bladder was placed in the isolette and connected via plastic tubing to a pump outside the isolette. The pump was specially designed to produce sinusoidal "respiration" in the bear, with the rate set to match the phase of the infant's respiration in quiet sleep. For control infants, the bear was not connected to a pump. Each infant was monitored using a continuous

time-lapse videorecording system that was adapted to fit onto the isolette so that neither access to the infant nor mobility of the isolette were compromised. Infants aged 31-33 weeks conceptional age (CA) were considered for the intervention once they had reached relative physiological stability and were expected to remain in their isolettes for a period of at least two weeks. Additional details of equipment and procedures are available elsewhere.

Results from each of these studies have shown that infants given a breathing bear spend more time in contact with their bears than do infants given a non-breathing bear or those with no bear (where contact was measured as time spent in the area the bear would have been situated). Moreover, the experience of self-regulation of stimulation was seen to have a facilitory effect on neurobehavioral development such that breathing bear babies showed advanced patterns of sleep. Furthermore, there is strong evidence that premature infants given a breathing bear demonstrate learning as early as 33-35 weeks CA. It is abundantly clear that premature infants are capable of modifying their motility to avail themselves of a biologically relevant source of stimulation. It is also clear that this experience results in developmental facilitation for these infants.

Additional studies are necessary to examine the longer-term effects of the breathing bear. Several such studies currently underway examine learning using a visual habituation procedure at 6 months and more general mental and motor performance using the Bayley Scales exam at 6 months and 1 year. The breathing bear has also been incorporated into a comprehensive early intervention and assessment study that includes peer support intervention for mothers of premature infants. This intervention is aimed at providing facilitative experiences for the infant in the preterm period and supportive intervention for the mother throughout the first six months, and incorporates a wide variety of dependent measures, including behavioral observations of the infant, mother-infant interactional observations, questionnaire batteries for the mother, and a six-month Bayley Scales exam. Such studies will provide additional insights as to the value of the breathing bear as an early intervention tool.

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Early State Characteristics of Premature Infants Provide Differential Prediction of Later Developmental Disabilities *Mary P. Whitney, Evelyn B. Thoman*

Our previous studies of full-term infants have shown that early state patterns during the earliest post-natal weeks predict later developmental problems. The purpose of this study was to extend the notion of general prediction of dysfunction from early state characteristics to prediction of different developmental disabilities. The sleep of 100 prematurely born infants was monitored weekly in the home for 24-hour periods when the infants were 1-5 weeks post-term. Sleep was recorded using an automated system consisting of a capacitance-type mattress pad placed in the baby's crib and attached to a small 24-hour recorder. When an infant is in the crib, motility signals from respiration and body movements are recorded. These signals are computer-scored and visually edited in 30-second epochs for Active Sleep, Quiet Sleep, Active-Quiet Transitional Sleep, Sleep-Wake Transition, Waking, and periods when the infant is out of the crib (Thoman & Glazier, 1987; Thoman & Whitney, 1989). Based on Bayley Scales administered at 12 months, corrected age, and semi-annual questionnaires from birth, the children were classified at 3 years of age into one of four outcome groups: normal, neurodevelopmental dysfunction, minimal mental delay, and physical disability.

Each of the problem groups was found to have a state profile that was significantly different from that of the normal group. Compared to the normal group, children with neurodevelopmental dysfunction spent significantly more time in Waking, less time in Active Sleep (AS) and Quiet Sleep (QS), had shorter AS Bout Lengths, shorter QS Bout Lengths, shorter Longest Sleep Periods, and lower State Stability scores (Thoman et al., 1981). In comparison with the normal group, the children with physical dysfunctions had a shorter QS Bout Lengths and a negative QS developmental rate. The positive QS developmental rate shown by the normal group is

generally found for infants, premature or full-term, during this age period. When compared with the normal group, the children with minimal mental delay spent more time in AS and less in QS, and had a greater AS developmental rate and shorter QS Bout Lengths.

These findings highlight the importance of using rather narrow categories of outcome rather than the broad classifications of normal or abnormal that are commonly employed. For instance, when compared to the normal group, the neurodevelopmental group spent less time in AS whereas the minimal mental-delay group spent more time in this state. If the outcome classification scheme had included only the categories of normal and abnormal, this difference might well have been obscured.

In order to determine whether these early measures could be used to identify which individual infants would go on to develop later problems, three methods of classification were employed. First, the profiles of each infant were compared to the mean profile for each of the outcome groups and the infant was assigned to the group whose profile he/she most closely resembled. Using this method, correct classification was achieved for 67% of the infants. Given the expected percentages in each outcome group, this corresponds to correct classification at 16% above a chance level. Closer examination revealed that while this method was adequate for correctly identifying abnormal infants, it misclassified a large number of normal infants.

We next classified the infants into outcome groups using a discriminant analysis based on the early-state profile measures. This method provided correct classification for 83% of the infants, or 46% above chance. Furthermore, while fewer abnormal infants were correctly identified than occurred using the profile analysis, the number of normal infants correctly identified reached 97%. In addition, it should be noted that both the profile analysis and the discriminant analysis using early-state measures were equally good at identifying the children with neurodevelopmental dysfunctions, with both methods correctly identifying six out of eight such infants.

Finally, we conducted a discriminant analysis using perinatal demographic and clinical variables often used in prediction studies. The total percentage of infants correctly classified by this method was 76%, which corresponds to 33% above chance level. This method of classification was quite good at identifying normal infants, reaching 98% correct classification, but poor at correctly classifying abnormal infants. In fact, this method correctly identified none of the infants in the neurodevelopmental group or the physical group and only two of the infants with minimal mental delay.

The results of this study indicate that early-state patterns differ as a function of the nature of later disability. Premature infants who go on to exhibit different types of disabilities, such as physical disabilities or neurodevelopmental dysfunctions, have distinct early-state characteristics when compared to normal premature infants. Furthermore, preliminary data suggest that measures of early-state characteristics may indicate which individual infants are at highest risk for later developmental disabilities.

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Language Development in Low Birthweight Infants: Prevalence of Delay

J.M. Byrne, C.P. Ellsworth, E. Bowering, and M.J. Vincer

Language delays are relatively more common in the pre-term, low birthweight (LBW) population. These patients fail hearing screening tests more than any other single clinical population. They also have a high incidence of academic failure or underachievement, particularly in the area of reading. Although this population has been the focus of much research in the past 15 years, the majority of studies have addressed the intellectual sequelae of these high-risk infants. The aim of the present study was twofold: first, to determine the prevalence of language delay among a cohort of consecutively referred 12- and 24-month-old premature, LBW infants. Second, to determine the concurrent validity of a language-screening measure with premature, LBW infants.

Between January and September 1990, 82 infants (41 12-month-olds; 41 24-month-olds) were seen for an assessment of language, and mental and motor abilities. Of these infants, six were excluded because they presented with a general cognitive impairment (i.e., <70 MDI, Bayley Scales of Infant Development [BSID]), that is, impairment not attributable solely to failed BSID language test items. An additional five infants were excluded because of sensory impairments. The final sample was 71 infants (36 12-month olds; 35 24-month olds), who had very similar backgrounds (SES: $\bar{x}$= 33.90 vs. 34.58; Gestation Age: $\bar{x}$= 29.80 vs. 29.67 wk; Birthweight: $\bar{x}$= 1194.17 vs. 1229.03g; Apgar 5 min: $\bar{x}$= 7.75 vs. 7.36; %AGA: 72.2 vs. 69.4%; %SGA: 25 vs. 25%; %RSD: 77.8 vs. 72.2%; %IVH: 34.3 vs. 36.1% %Asphyxia: 47.2 vs. 41.7%).

Each infant was assessed using three instruments: a) The Early Language Milestone (ELM) Scale, a language-screening instrument: b) the BSID, a mental- and motor-assessment instrument; and c) the Sequenced Inventory of Communication Development--Revised (SICD--R), a language-assessment instrument. The assessment protocol was administered by two clinical psychologists and a psychology intern; the test order was randomized to ensure possible fatigue and did not influence performance on a particular test or screening measure. The testers were blind to the results of the other assessment/screening instruments, as well as to the medical history of the infant. Short breaks, coupled with a change of testing room, maintained the infant's interest in the protocol.

Prevalence of Delay (SICD--R): With regard to expressive language, 8.3% of the 12-month-olds exhibited a delay, while 27.8% of the 24-month-olds exhibited a delay. With regard to receptive language, 0% of the 12-month-olds exhibited a delay, while 5.6% of the 24-month-olds exhibited a delay. Mean Length of Utterance (MLU) was also calculated for the 24-month-olds during a 15-minute free-play observation, as part of the SICD--R. The results showed that only 64% of the infants exhibited a sufficient number of utterances ($\geq$ 50) to calculate MLU, and of these, only 30% were within the normal range.

Language Screening (ELM): With regard to expressive language ability, the ELM correctly identified two of the three infants exhibiting delayed expressive language (68% Sensitivity), and 30 of the 33 infants exhibiting normal expressive language (91% Specificity). The overall identification rate was 89% for the 12-month-olds. For 24-month-olds, the ELM correctly identified only 6 of the 10 infants exhibiting delayed expressive language (60% Sensitivity), and 20 of the 25 infants exhibiting normal expressive language (80% Specificity). The overall identification rate was 74% for the 24-month-olds.

In regard to receptive language ability, none of the 12-month-olds exhibited a delay, while the ELM correctly identified 35 of the 36 infants exhibiting normal receptive language (97% Specificity). The overall identification rate was 97% for the 12-month-olds. For the 24-month-olds, the ELM correctly identified 0 of the two infants exhibiting a delay (0% Sensitivity), and 33 of the 35 infants exhibiting normal expressive language (94% Specificity). The overall identification rate was 94% for the 24-month-olds.

The results show that in a group of premature LBW infants, free of sensory and serious cognitive impairment, the prevalence of language delay is relatively low for 12-month-olds, but moderate (approximately 1:3) for 24-month-olds. Furthermore, within the confines of a brief clinic visit, most 24-month-old premature LBW infants exhibit minimal language samples from which to determine the need for further professional consultation. The fact that only 30% of those with sufficient samples had an MLU within normal limits suggests that pragmatic functional language may need further assessment in this population. These findings suggest: a) assessment of language in premature LBW infants might yield its greatest cost-benefit ratio at 24 months; b) at both ages, expressive language appears to be relatively less developed than receptive language; and c) language assessment should be augmented with a sampling of spontaneous language output by 24 months of age. Further longitudinal study would assist in determining the stability and/or correlates of language delay identified in infancy.

Finally, as a brief screen for language delay, the ELM appears to have a high overall rate of identification for premature LBW infants, at both ages. However, given that this population is already identified, by way of its medical history, as being at risk for delayed language, the ELM rates of sensitivity are discouraging. The eventual clinical usefulness of this instrument with the premature LBW population must await further evaluation with a larger population, comprising a larger number of language delayed infants.

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WORK AND FAMILY/CHILD CARE

Child Care as a Social Support System for Employed Mothers *Julia Schumacher, Debra K. DeMeis*

In discussions of the issue of maternal employment, child care has been examined primarily for its impact on children and their development (e. g. , Belsky, Steinberg, & Walker, 1982). Yet child care providers may play an equally important role in the psychological well-being of mothers (McCartney & Phillips, 1988), as sources of social support giving mothers emotional encouragement as well as services, information, and advice (Gottlieb, 1977; House, 1982; McCartney & Phillips, 1988). Thus, examination of the relationship between a mother and her child's caregiver may provide insight into women's responses to the challenge of combining motherhood and employment. The present lack of research on the mother-provider relationship led to the present study, which examined the supportive role of child care providers in the lives of employed mothers. In particular, it focused on whether the nature of the mother-provider relationship predicted levels of maternal depression. We reasoned that if child care providers serve as a source of social support, employed mothers who receive more information and emotional acceptance from their providers should report fewer depressive behaviors.

Seventy mothers of preschool children were recruited from day care centers, pediatricians' offices, and Sunday schools. The mothers had a mean age of 32. 59 years (SD=4. 77) and a mean educational level of 15. 5 years (SD=2. 56). The women had an average of 2. 9 children. All were employed (51 were employed full time or >35 hours per week), and earned an average of $20,000 to $30,000 per year. Their occupations ranged from unskilled worker to professional. Almost all were married (n=68), and their husbands' incomes averaged in the $20,000 to $40,000 range. The target preschool child was between 2 and 5 years old, and was usually the youngest child in the family. When their mothers were employed, most children were cared for in a center (n=39); the remaining children were divided equally among the following settings: babysitters in the child's home or the sitter's home, care by a relative, or preschool. Mothers were given a packet containing a letter that described the purpose and procedure of the study, all questionnaires, and an addressed stamped envelope from the place where they were recruited. Mothers completed all questionnaires at home and returned them by mail.

The Family Information Questionnaire consisted of questions concerning demographic and background information and their employment preference (full-time employee, part-time employee, or full-time homemaker). The Child Care as Social Support Scale (CCSSS) contained 11 items, and was developed to measure informational and emotional support. Mothers answered the scale in terms of their youngest preschool child's provider. A factor analysis indicated that the scale had a three-factor structure. Factor 1 (four items) was interpreted as a measure of emotional support and factors 2 (three items) and 3 (four items) as measures of two separate aspects of informational support. The final measure was the CESDT, which measures symptoms of depression in community populations. Respondents indicated the number of days in the past week that they experienced each of 14 depressive behaviors.

In a forced-entry multiple regression analysis, the three factors of the CCSSS were entered separately in the first three steps. Only factor 1, which measured a mother's emotional connection to her provider, was a reliable predictor of depression scores [$F(1,64)=4.28$, $p=.043$], accounting for 6.1% of the variance. The addition of employment preference in step four resulted in a significant increase in R[($F(4,61)=4.60$, $p=.036$], accounting for 6.3% of the variance. Although R did not increase significantly when the block of background variables was included, it accounted for 17.7% of the variance. The final model including all variables was significant [$F(11,55)=2.41$, $p=.0158$] and accounted for 32.6% of the variance. A series of t-tests confirmed the results of the regression analysis concerning the CCSSS. Mothers were divided into two groups based on their scores on factor 1: mothers who reported higher emotional support had significantly lower CESDT scores ($\bar{x}=12.78$, $SD=9.36$) than those who reported lower emotional support ($\bar{x}=21.49$, $SD=14.11$). Differences between equivalent groups for factors 2 and 3 were not significant.

According to the results, emotional support from child care providers is a significant element in the psychological well-being of employed mothers. Although the contribution of emotional support was relatively small, its importance should not be minimized. Emotional support was significant despite the fact that the women in the sample had a number of other available resources, e.g., spouse support and adequate incomes. For women with fewer advantages, child care may function as a more important form of support (Parker, Piotrkowski, & Peay, 1987). In addition, child care providers emerge as a source of support even though their primary goal is to meet the needs of children. The lack of relationship between informational support and depression scores may have occurred because the sample consisted of relatively well-educated and older mothers who were confident about their childrearing skills. Although the correlational design prevents determination of cause-effect relationships, the results are suggestive that child care is an important factor for understanding women's responses to their attempts to combine motherhood and employment.

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Infancy Child Care Patterns and Later Teacher Ratings of Preschool Behaviors *Kyung Ja Park, Alice Honig*

The question of potential short- and long-term sequelae of early non-parental care is of interest to parents as well as scientists. Earlier research showed no significant effects of infancy non-parental care on socioemotional or cognitive development (Belsky & Steinberg, 1978). However, further researches (Barglow, Vaughn, & Molitor, 1987; Belsky & Rovine, 1988; Field et al., 1988) caused Belsky (1988) to conclude that entry into (non-maternal) care in the first year of life for 20 hours or more per week is a "risk factor" for the development of insecure-avoidant infancy attachment as measured by the Ainsworth Strange Situation, and for later heightened aggressiveness, noncompliance, and withdrawal in the preschool years.

The present study examines preschool socioemotional and cognitive development as rated by teachers thoroughly familiar with the children and blind to their infant care status. Subjects were 105 middle-class 3-1/2- to 5-year-old boys and girls (M = 53 months). The children attended nine different child care centers in a medium-sized urban area. They were assigned to groups according to their child care history: Group 1 -- full-time non-parental care begun prior to nine months; Group 2 -- full-time non-parental care begun after 9 months; Group 3 -- no full-time non-parental care before 36 months. Teachers rated the children on the Preschool Behavior Questionnaire (PBQ; Behar & Stringfield, 1974) and the Preschool Behavior Rating (PBR; Schwarz, Strickland, & Krolick, 1974).

Results revealed that timing of onset of full-time non-parental care affected preschoolers' subsequent developmental achievements. On the positive side, the teachers, blind to the children's care status in infancy, rated Group 1 children as significantly more successful at problem solving and more competent intellectually. However, teachers also rated Group 1 preschoolers as significantly more aggressive (but not more assertive) than Group 3 children. For full-time non-parental care children, research findings of an increased risk of an Ainsworth avoidant attachment (Sroufe, 1988) have been interpreted positively as an example of increased emotional maturity (Clarke-Stewart, 1988). In this study, the increased hostile-aggressive responses observed, and the lying, disobedience, and readiness to blame others can in no way be given a positive interpretation. Length of daily separation from parents also affected children's subsequent functioning. Children with full-time non-parental care during infancy/toddlerhood (Groups

1 and 2) were rated as two times more hostile-aggressive than children with no full-time non-parental care during the first three years of life (Group 3).

Our findings are consonant with those of Vandell and Corasaniti (1990), who found that third-grade teachers rated children who had had extensive early infancy full-time care as less compliant and with more negative social peer nominations. The results raise some interesting problems for day care policy. Haskins (1985) reported that low-income kindergartners who had attended a full-time cognitively oriented care program from early infancy were cognitively superior to control but also far more likely to be aggressive in a variety of school settings, as compared to control youngsters. However, when a prosocial program was implemented in the child care center, then subsequent waves of graduated did not exhibit higher aggression rates than controls. We are, therefore hopeful that a concerted and deliberate policy to promote a prosocial curriculum in infancy and preschool classrooms may ameliorate such negative behaviors.

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Child Care Experience Predicts Elementary School Teacher Ratings of Aggression in Girls

Donna Romano White, Ellen Jacobs

Research has modified society's ideas about the effects of day care experience on children's development. Popular opinion has moved from the position that non-maternal care, including day care, is harmful to intellectual, social, and emotional development, to the idea that day care has few if any harmful effects. One exception to this general conclusion is the debate about whether group child care experience promotes the development of aggressive behavior in children. Some studies provide support for the idea that preschool day care experience may be related to aggressive behavior patterns in school age children (e.g., Finkelstein, 1982; Haskins, 1985). One difficulty with research in this area is that researchers have generally assumed that stable care arrangements are experienced by most children. Therefore, groups of day care and home-reared or non-day care children are formed. Unfortunately, such labels may be misleading, as many children experience several types of care, frequently change from sitter or mother to group care, and differ widely in the total amount of group experience they have in the preschool years.

The purpose of the present study was to assess several aspects of day care history and to examine the relationship between preschool child care, sex, SES, and language ability in predicting aggression ratings of children in kindergarten to grade two. Four hundred families with children attending these grades in three urban elementary schools were asked to participate in the study. Parental consent to participate was obtained for 333 children -- 169 boys and 164 girls. Classroom teachers rated all 333 children on a modified version of a teacher rating scale developed by Vandell and Corasaniti (1989). A nine-item subscale, composed of aggressive items such as teasing, biting, fighting, and destroying property, was used to assess aggressive behavior. A translated version of the Peabody Picture Vocabulary Test -- Revised (Dunn, Dunn, & Whalen, 1988) was used to assess vocabulary. Telephone interviews with parents were used to obtain information about parental education and employment status; Hollingshead (1975) SES ratings were calculated. Parents were also asked to describe their current and past child care arrangements. These descriptive accounts were used to code several day care experience variables, two of which were selected on the basis of statistical criteria for subsequent regression analyses. The experience variables selected were number of months spent in group care settings between birth and 5 years of age, and the number of different types of care experienced between birth and 5 years of age.

Reliability of the aggression ratings was measured by calculating a Cronbach alpha for boys (.85) and girls (.81). Also, a subsample of 112 children who were attending after-school care were rated by their day care teachers. Interrater reliability between classroom and day care teachers was found to be significant for both boys ($r = .54$, $n = 60$, $p < .001$) and girls ($r = .52$, $n = 52$, $p < .001$). It was found that only SES predicted a significant amount of variance in aggression ratings for boys; within the multivariate model, child care variables were not related to aggression ratings in boys. In girls, number of months of child care experience was the best predictor of aggression ratings; SES, vocabulary, and different types of care were not significantly related to aggression ratings.

Interpretation of these results requires that several additional factors be considered. First, in this sample, SES was unrelated to number of months of care for boys, but was positively correlated with number of months of care for girls. Girls from higher SES families were spending more time in group care. Furthermore, significantly more girls than boys had no group experience during the preschool years. These factors suggest that selection effects may account for some of the observed relationship between aggression and girls' day care experience. Higher SES families may be more likely to choose group care because of less traditional

sex role values. Secondly, the question of how differences in aggressive ratings of girls with little or no group experience and those with a great deal of experience emerge requires further investigation. One set of hypotheses is that girls who had attend group care have more frequent interactions with boys or are at least able to observe more aggressive behavior in boys, which they subsequently imitate. A second set of hypotheses is related to the idea that mothers who do not use group care for their daughters are apt to encourage more compliant, less aggressive behavior in their children. Finally, boys are rated as significantly more aggressive than girls. Therefore, even though day care experience may be related to higher ratings of aggression in girls, one cannot conclude that this is a "harmful" effect. Girls who attend day care are not, on the average, more aggressive than normal boys.

It is quite possible that all of these factors -- selection of group care by less sex-typed families, group processes that facilitate learning aggressive behaviors by girls in these settings, and less acceptance of aggressive behavior by mothers not using group care options -- are related to the current findings. These explanations await verification in future research. It cannot be overemphasized that the relationship of child care experience to aggression ratings in girls is not necessarily a "harmful" effect of child care. Such a conclusion is not warranted by the current findings.

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The Social Worlds of Children: Child Care in the Context of Children's Social Networks *Dale C. Farran, Jayanthi Mistry*

The social networks of children of various ages from different cultures and countries have begun to receive attention from developmental psychologists and sociologists (eg., recent volumes by Belle, 1989). Understanding children's social networks is important because of the differential effects they may have on development and the differential meaning the social world of child care may have for children in different types of networks (Farran, Mistry, Herman, & Ai-Chang, in press).

This study utilized an interview and diary record-keeping procedure with 44 families of 4-year-old children who attended day care to determine the size, characteristics, and frequency of contact of their social networks. Five preschools were involved. One was in Honolulu (11 families) the other was on the rural coast of Oahu (10 families). All the Hawaiian families were established, multi-generation residents; socioeconomic background was predominantly middle to working class. The remaining 23 families were from a small city and a surrounding rural area of North Carolina (also called the "mainland" sample); one urban (10 families) and two rural (13 families) preschools were involved. These 23 families were similar in socioeconomic status; many of them were also long-term residents of the area.

Mothers were interviewed individually to determine the composition of their children's social networks (exclusive of the people encountered daily in the preschools). Names from the initial interview were then typed onto circular stickers and given to the mother with a laminated week-long calendar board. At the end of each day, mother and child placed name stickers on the calendar for all people with whom the child had interacted. This process was repeated for four weeks. At the end of the four weeks, mothers were interviewed again using a card-sort procedure to determine the child-related roles of the most active members of the network (defined as those seen two or more times in the four weeks).

Analyses indicate that the social networks of both Hawaiian samples were larger than that of the North Carolina samples. The rural Hawaiian sample had a much larger social network than the urban sample; however, the mainland rural network was the smallest of all the groups assessed (Hawaiian Urban: 67.5 network members; Hawaiian Rural: 106.6; North Carolina Urban: 51.1; North Carolina Rural: 39.8). Children in both North Carolina samples encountered significantly fewer people per day than the Hawaiian groups. Rural Hawaiian children daily saw three times the number of people in their networks as compared to North Carolina children (Hawaiian Urban: 18.3 people seen per day; Hawaiian Rural: 23.7; North Carolina: 7.0; North Carolina Rural: 7.2). A higher proportion of males was found in the networks of rural children, both on the mainland and in Hawaii. More than 50% of the network members were relatives of the children in all networks except the urban North Carolina one; the highest proportion of relatives was found in the rural North Carolina networks, where families appeared to know few non-relatives. In fact, 95% of the people the rural North Carolina children saw frequently were relatives.

In terms of the contribution of frequently seen network members to active childrearing roles, the proportion of each network actively engaged in various roles is different in each sample, with a higher proportion of mainland network members playing active roles. An examination of the actual number of people who engaged the children in these roles presents a different picture. More people were engaged with Hawaiian children in school-skills instruction, caretaking, and hobbies. In all the networks, the same number of people are considered to be involved with children in reading.

The Hawaiian children both knew and interacted with many more individuals; members of their networks had a greater amount and wider variety of role responsibilities. Preschool for Hawaiian children was not a vital socializer; however, for North Carolina children who often encountered no one other than their immediate families and members of their preschools during the day,

the social environment of day care may be a critical socialization experience, especially in a rural environment. As the country moves toward expanded involvement in the establishment of child care settings, it is crucial that policies be individualized for subgroups of children whose social worlds outside the child care setting may be quite different. Congruence and coordination between all aspects of children's social worlds are essential for adequate and complete development.

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CAREGIVER INTERVENTION

Caregiver Focused Intervention: Effects on Subsequently Born Children *Victoria Seitz, Nancy H. Apfel*

Relatively little is known about effects of intervention programs focusing on caregivers. A particularly interesting question is whether services directed towards parents of firstborn children might have delayed benefits for their later-born children. We have been examining the effects of a small but intensive family support program provided to 17 impoverished inner-city families who delivered a healthy firstborn child in 1968-1970. Services were interdisciplinary, involving pediatricians, social workers, psychologists, and day care workers, and continuing from the child's birth to 30 months postpartum. A time-lag control group of 17 families who would have been served by the program had its funding permitted it to be continued was recruited.

Results of the program 10 years after it ended (Seitz, Rosenbaum, & Apfel, 1985) indicated that children's IQs were unaffected by this kind of family support, but that intervention children had significantly better school attendance and overall school adjustment than did control children. Our interpretation of these results was that intervention-group mothers had learned a more competent parenting style, which led to their children's better school adjustment. If this interpretation is correct, these mothers should do a better job with all their children, not just their firstborns. That is, there should be a family-wide diffusion of effects after successful intervention with parents.

For the present follow-up we were able to locate 15 of the 17 original matched pairs of families and examine the school performance of all later-born siblings over a three-year period (academic years 1982-83, 1983-84, 1984-85). The number of school-aged siblings ranged from 10 intervention and 11 comparison children in the first year to 12 intervention and 14 comparison group siblings in the third year of data collection, as new children became school-aged. Ages of the children at the beginning of the third year were $\bar{X}$ = 113.4 months (SD = 31.9) for intervention-group siblings and $\bar{X}$ = 115.5 months (SD = 39.3) for comparison siblings ($t < 1$, not significant). There were six girls and six boys in the intervention, and eight girls and six boys in the comparison group. A full three years of data were gathered for 10 of the intervention and 11 comparison children; two years of data were gathered for two intervention- and three comparison-group children. The two groups were thus similar in gender, age, and completeness of available data.

Using the same criteria of school adjustment as for first-born children, the findings were as follows. Defining high absenteeism as 20 or more unexcused absences during the school year, over a three-year period, none of the intervention-group siblings had ever been excessively absent; slightly over one-third (36%) of the control-group siblings had shown high absenteeism in one or more years (chi-square [1] = 5.10, $p < .05$, Mantel, 1963). Over a three-year period, only one of the 12 intervention siblings (8%) had ever failed to be promoted on schedule; seven of the 14 control siblings (50%) had failed to be promoted yearly or were not going to be recommended for promotion at the end of the current year (chi-square [1] = 3.62, $p < .10$). One-third of the intervention siblings and almost three-quarters of the control siblings (71%) had received special services at some time over the three-year time span (chi-square [1] = 5.06, $p < .05$). Combining all three measures, the number of children who showed any trouble signs over three years of school was 5 of the 12 intervention-group siblings (42%) versus 12 of the 14 control siblings (86%) (chi-square [1] = 5.34, $p < .05$). Thus, almost all of the control-group siblings were showing signs of trouble in school, whereas over half of the intervention-group children were free of any of these signs of trouble over a three-year period. Results for these siblings thus were very similar to those found for the firstborn children (Seitz et al., 1985).

The results provide evidence that early family support intervention can have very long lasting effects, even for family members who were not born before the intervention ended. Implications of the findings, comparisons with other forms of early intervention, and suggestions for further research will be discussed.

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MISCELLANEOUS

Kindergarten Entrance Age of Summer Birthdate Children: Is There An Academic Risk Factor?

Sandra Crosser

John and Stephen were 5-year-old males of like intelligence born during the summer months. John's parents enrolled him in public kindergarten in the September after his fifth birthday. However, Stephen's parents opted to wait one year to begin kindergarten so that Stephen would be one of the oldest pupils, rather than one of the youngest in his class. Stephen's entrance to kindergarten at age 6 reflects a reported trend, particularly among upper-middle-class parents, to hold back their summer-born children in order to give them an academic advantage (Bracey, 1989). Does such an academic advantage exist? Are summer-born children who enter kindergarten on schedule put at academic risk simply by being among the youngest in their class?

In order to study those questions, a causal-comparative research design was employed to compare academic achievement indices at fifth and sixth grade level for two groups: 1) summer birthdate children who had entered kindergarten at age 5, and 2) summer birthdate children who had entered kindergarten at age 6 (Crosser, 1991). Ninety subjects from seven school districts were matched for gender and intelligence. Matched pairs scored within one standard error of measurement on identical standardized intelligence tests. Normal curve equivalent (NCE) scores on standardized achievement tests taken in grades five and six were then compared for those 45 matched pairs of subjects.

Dependent t tests indicated a statistically significant advantage ($p<.05$) for both older males and older females on composite achievement test (NCE) scores. Differences in achievement scores were greatest in the reading subtests. Males who had entered kindergarten at age 6 performed significantly higher in reading ($p<.01$) than males who had entered kindergarten at age 5. Six-year-old female entrants also scored higher in reading than did their 5-year-old counterparts, but only at the .10 alpha level. Mean NCE scores for mathematics achievement at the intermediate level were not significantly different at the 0.5 alpha level for younger and older summer birthdate subjects. However, mathematics scores favoring older males did demonstrate significance at the .10 alpha level (Crosser, 1991).

Does age at kindergarten entrance involve a risk factor for summer birthdate children? Perhaps. If age at kindergarten entrance puts one particular group of children at an academic advantage or disadvantage, then educational practitioners and policy makers have a need to know. However, decisions about entrance age should not be based on a single study. Further research into the nature of any school entrance age effect for summer birthdate children would appear to be indicated. The summer birthdate question may be further complicated by socioeconomic factors. Summer children who are already at potential academic risk because they live in poverty are the least likely to be held out of kindergarten until age 6 (Bracey, 1989; Meisels, 1991). When affluent parents hold their children out of kindergarten a year in order to give them an academic advantage, lower-income children who enter on schedule are forced to compete academically with classmates who may be 12 to 18 months their senior.

If the kindergarten curriculum is individualized and developmentally appropriate, then the youngest children in any class would be enabled to learn and grow at their own rates. However, if the kindergarten program is based on the trickle-down academic model so prevalent today, then children with summer birthdays may be placed at academic risk simply because they were 5 years old when they entered the school house doors.

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Childrearing Practices Relating to Childrens Clothing, Appearance, and Behavior *Lillian O. Holloman, Velma LaPoint*

The impact of clothing and appearance on student academic achievement and social behavior is receiving much attention in many major U.S. educational systems, the criminal justice system, and the media. Three social problems have emerged relating to the interface of youth clothing, appearance, and behavior: 1) the subjugation and negation of academic achievement in terms of grades and other indicators; 2) compromised and distorted values and attitudes among youth about the self, other people, and the material culture; and 3) student involvement in violent and other antisocial behavior with peers, parents, and others. The preoccupation of youth with clothing and appearance and associated problems occur across all income and ethnic groups. However, low-income parents and African-American parents may be vulnerable to such problems given the reported frequency of their children in negative circumstances relating to youth clothing, appearance, and behavior.

The role of childrearing practices has been linked to problems relating to youth clothing, appearance, and behavior. However, the specific nature of such relationships is not documented empirically. The identification of problems associated with youth clothing, appearance, and behavior warrants systemic analysis to determine if such problems have their origins in early childhood, when the foundation of socialization and child competence, including academic achievement, exist. Most importantly, appropriate strategies for problem resolution can be recommended early for parents and others in the socialization process. Head Start represents an opportunity for parents to become better informed about their role in creating and reinforcing child attitudes and behavior about clothing and appearance. Moreover, it represents an opportunity for parents to clarify their own values about clothing and appearance, which can serve as a basis for their own childrearing practices in this area.

Pilot research is being conducted to determine how both parental and children's attitudes and values about clothing and appearance impact childrearing practices. Data in the following areas are being addressed: 1) parental perceptions and observations of children's attitudes and behavior, respectively, toward clothing; 2) parental perceptions of children's clothing and the children's clothing industry; 3) children's perceptions of children's clothing; 4) children's perceptions of parental attitudes and behavior toward clothing and appearance; and 5) observations by researchers of parent-child interactions relating to children's selection and wearing of clothing.

Research subjects will consist of 30 mother-child dyads of children enrolled in day care centers located in the Washington, D.C., metropolitan area. Mothers were selected as the parent to be included in this study because research has shown that mothers are generally responsible for shopping for children's clothing and are major decision-makers of the clothing that children wear on a routine basis. Both survey and ethnographic research methods will be utilized in order to present the most accurate information to researchers. The data will be analyzed using descriptive statistics and other systematic analysis of interviewers.

Findings are projected to be in accord with data gleaned from reviewing and summarizing related literature on the topic, where available. Analysis of the data from this study will yield both new information on this topic and will serve to support or challenge the existing body of literature on the topic, a summary of which follows. In some cases, the cited literature makes references to young adolescents instead of children. Such a reference takes into consideration similar interacting forces that may be present in both the development of adolescents and children.

Following is a very brief summarized review of the literature of the research areas included in this study: parental observations of children's attitude toward clothing; increased frequency of young children in stating a preference for a certain type of clothing; keener attention of young children to fashion industry ads geared toward children and parental behavior regarding property and material possessions; increased influence on young children by their peers; parental perceptions of children's clothing and the children's clothing industry; parents' conflicting attitudes about the children's clothing industry; parental accommodation of and contribution to the problem of the children's clothing industry; children's perceptions of children's clothing; perceptions derived from advertisements aimed at children, clothing worn by peers, and parental attitudes; capability of young children to identify clothing items as fashionable or unfashionable according to the latest trends; children's perceptions of parental attitudes toward clothing and appearance; sense of parental values gleaned by observing parental behavior; parental contribution to children's and adolescents' excessive preoccupation with clothing; parent-child interactions during selection of children's clothing; selection by children based on recognition of items advertised by the clothing industry, or worn by peers or heroes; mother's independent decision-making for very young children based on personal values; conflict and compromise between parent/child in the clothing selection process.

Although it is exploratory and relatively new, this research on relationships among parental and child attitudes, values, and behavior is important. The kinds of problems relating to negative academic achievement, compromised and distorted values, and violent and antisocial behavior require our immediate attention and resolution. The fact that such problems may have origins during the early childhood period, within the context of parental childrearing practices and other early socialization experiences, suggests a need for early problem resolution with effective intervention strategies. This research will provide the foundation for further research in the area of clothing, appearance, and behavior. Children, parents, and families served by Head Start are primarily low-income, African-American, Hispanic, or some other ethnic group. Findings from this research will have direct implications for childrearing practices and school dress policies that may improve the academic and social competence of Head Start children.

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A Study of the Effects of a Homesharing Program for Single-Parent Families

Patricia Goth Mace, Penny Berry, Sandy Cochran

Much has been written on the feminization of poverty. It is a trend that has developed since 1960 and has grown at such an alarming rate that it is now estimated that three-fourths of all poverty in the United States is concentrated among women and children (Simon 1988; Goldberg & Kremen 1987). The causes of this trend are complex. In part, it stems from the large increase in single-parent female-headed households, reflecting the increase in divorce and the increasing number of single teenage mothers during this time period. Another significant factor is the discrimination against women in the labor force. While more women work outside the home than ever before, most "women's jobs" are low-paying and less likely to be unionized (Peterson, 1987). In addition, women are more likely to have child care responsibilities and lack affordable child care, which would permit them to work at all. Finally, policy changes in Aid to Families with Dependent Children have been especially hard on poor working women, often causing them to lose eligibility for food stamps, Medicaid, and child care benefits, in addition to their AFDC support (Sarri, 1985).

Discussion of how to respond to this trend consistently points to the need for economic self-sufficiency (Washington & Oyemade 1987). Low-cost public housing is currently of poor quality and in short supply in this country (Simon, 1988). Efforts have been made to develop nontraditional housing, specifically with poor, single-parent families in mind. Evaluations of projects such as Warren Village and Elizabeth Stone House have indicated that residents increase their level of education as well as their rate of employment. By providing day care, support groups, education and employment counseling, as well as affordable housing, they help poor families move toward economic independence (Anthony, in press).

In this poster, research was presented on a different form of non-traditional housing for single parents. It is a model that evolved from work with the elderly. Homesharing programs for seniors have promoted shared housing between non-relatives by pairing people with complementary resources and needs in order to delay or postpone institutionalization of elderly individuals. The advantages address the financial, safety, and companionship needs of people faced with living alone (Schreter, 1985). The poster reported on the effects of a homesharing program specifically designed for single-parent families. The program has been in existence for two years, and in that time has made more than 90 successful matches. In most cases, women who own a home but are unable to survive financially (called providers) are paired with single parents who are in need of housing (called seekers). Occasionally, two seekers are paired so that they can afford to find an apartment or house to rent together. The first part of the poster focused on a description of the program. It described the client population demographically and outlined the role of staff in forming and sustaining matches. Discussion of the case-management and education groups provided to help these single parents was included. Results were presented from interviews with 22 parents who have been in successful matches.

Information was available on the factors that have drawn people to homesharing and the limited alternatives they faced at the time of their match. The problems and benefits of homesharing were also reported, with special emphasis on the informal benefits beyond the financial arrangement. Included was a discussion of the ways homesharing has affected the children in these matches. The effects of divorce on children have been well documented (Wallerstein & Kelly, 1980). It is clear that much of the stress in single-parent families stems from social-environmental factors (Vosler & Proctor, 1991), and that it is not necessarily the case that these family units are structurally deficient (Green & Crooks, 1988). Thus, it is argued that homesharing for single-parent families can provide a cost-effective way to address their financial, social, and emotional needs.

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A Summary of Preliminary Findings from 15 Washington State Placement Prevention and Reunification Projects *Diana J. English, Kathy Sullivan-Gerke*

In 1988, the Washington State Legislature authorized $2.24 million to fund "intensive case-management services designed to reunify families and prevent out-of-home placements." Local child welfare offices submitted proposals for family preservation projects. In the first year, 10 projects were funded. In 1989, the Washington State Legislature authorized $2.02 million for the continuation and expansion of foster care diversion projects. Four additional projects were funded in the second year.

Projects typically include caseworkers with lidded caseloads who provide intensive case-management services: in-home counseling, training and monitoring services, and additional legal, evaluation, and treatment services. Projects also had additional funds to purchase concrete items needed by families. Each project was required to develop a research component as part of the project. The majority of projects utilized a randomized control group research design and developed both primary and secondary outcomes. The two primary outcome measures were placement prevention and reduction in length of stay. Some secondary outcomes were reduction in length of time to permanency planning, reduction in number of foster care placements, and reduce re-referrals or increase coordination within office and with community. All projects were required to show their ability to be cost neutral in the second year of funding. In this instance, cost neutrality meant generating enough savings in foster care costs to offset project costs.

Findings from the evaluation of these projects are presented. The presentation includes an evaluation of implementation issues, as well as quantitative outcomes related to placement prevention and placement reunification. Cost-neutrality methodology will also be presented. This is an ongoing research project that is in its second year. For some projects, the findings are preliminary but significant. For example, in one project, twice as many children entered placement in the control group as compared to the experimental group. In another project, permanent plans were finalized for three out of four children in the experimental group as compared to the one in five in the control group. The discussion includes the mix of services and caseload size that accounted for the most successful outcomes.

Prenatal Exposure to Cocaine: Neurobehavioral Outcome and Parent-Infant Interaction *Maureen Black, Maureen Schuler*

With the recognition that cocaine and other drugs cross the placenta, drug abuse has entered neonatal nurseries. The effects of prenatal drug exposure may be either direct, through introduction of the drug to the fetus, or indirect, through a lifestyle that interferes with healthy parent-infant interaction. In order to measure developmental recovery, adjustment to parenting, and early parent-infant interaction, 20 drug-exposed infants and 20 drug-free infants were followed from birth through 6 weeks of age at bi-weekly intervals.

Mothers and babies were recruited following delivery at a large inner-city hospital. Drug status was determined through maternal report and medical history (verified by urine screen when possible). Developmental status was measured using the Neonatal Behavioral Assessment Scale (NBAS) (Brazelton, 1984), administered in the hospital at birth, and in the home at 2, 4, and 6 weeks after birth. Adjustment to parenting was assessed through measures of stress (Parenting Stress Index -- Abidin, 1990), support (Family Support Scale -- Dunst, Jenkins, &, Trivette, 1984), and infant temperament (Infant Temperament Questionnaire -- Rothbart, 1981). Parent-infant interaction was measured by videotaping the mother and baby playing and then coding their interactive quality using a standardized strategy (Parent-Child Early Relational Assessment -- Clark, 1985) and raters who were unaware of maternal drug status. Participants were primarily single women (94%), average age 25.85 years; approximately half were having their first baby (54%). They had limited education (52% completed high school), restricted financial resources, and frequently depended on social services (60% received AFDC, 94% received medical assistance). The drug and comparison groups did not differ on any measures of demographic status. Only full-term infants were recruited (mean birth weight 3087.52 grams), and there were no group differences on APGAR scores. However, the drug-exposed babies weighed less than babies in the comparison group ($F = 4.67$, $p = .04$).

At birth, babies of drug-using women had more neurobehavioral difficulties than babies of drug-free mothers ($F = 3.08$, $p = .02$, Wilks lambda), but by 4 weeks of age overall differences were no longer apparent. At birth, drug-exposed babies had more abnormal reflexes ($F = 5.66$, $p = .02$), fewer orientation skills ($F = 8.63$, $p = .006$), less motor maturity ($F = 5.66$, $p = .02$), and less ability to modulate autonomic responses ($F = 7.12$, $p = .01$). By 2 weeks of age, all differences had been resolved, with the exception

that the drug-exposed babies continued to have difficulties with autonomic stability ($F = 9.88$, $p = .003$). At 4 weeks of age, there were no differences between the two groups, but at 6 weeks, the drug-exposed babies continued to exhibit autonomic weaknesses ($F = 5.62$, $p = .02$).

When the NBAS was reorganized using the neurobehavioral syndromes of excitable and depressed behavior, recently described by Lester and colleagues (in press), differences between prenatally exposed babies and drug-free babies were present at birth ($F = 6.59$, $p = .004$, Wilks lambda), because the drug-exposed babies were more depressed than their peers ($F = 11.48$, $p = .002$). By the second week of life, there were no longer group differences on either excitability or depression.

The two groups did not differ from one another or from the normative group on the level of parenting stress they reported. Similarly, there were no group differences of family support. However, the mothers of drug-exposed babies rated their babies as marginally more difficult to soothe than did the mothers in the comparison group ($F = 3.22$, $p = .08$). There were no group differences on observed parent-infant interaction. The lack of differences in parent-infant interaction raises several possible explanations: a) the observation scale may not be sensitive to differences in parent-infant behavior at 2 weeks of age, b) the range of behaviors available to parents and their 2-week old infants may not reveal interactional problems, or c) there may be no interactional differences between the groups.

In this project, we found that although infants exposed to drugs prior to birth behaved less optimally at birth in comparison to non-drug-exposed infants, by 2 weeks of age most differences had resolved, and mothers of drug-exposed infants were only marginally more concerned about the soothability of their babies than were comparison-group mothers. Despite the early differences in infant behavior observed on the NBAS, neither stress nor support differentiated mothers of drug-exposed babies from comparison mothers, and there were no differences in the early parent-infant interaction during play. These findings suggest that although prenatal drug-exposure may have an initial influence on infant behavior, the differences were transient and resolved quickly. Since the transient effects seemed to be related to prenatal exposure, they might not be related to later development. Moreover, there did not appear to be direct effects of prenatal drug exposure on either parenting or early parent-infant interaction.

Although there are numerous methodological problems inherent in investigations of the developmental consequences of prenatal drug exposure (Koren et al., 1989; Zuckerman et al., 1989) this study sought to avoid many of those problems by using a comparison group with similar demographic characteristics, systematic observations, and blinded observers. Moreover, by following the infants during the first six weeks of life, this study documented the rather transient effects of prenatal drug exposure on infant development, early parenting, and parent-infant interaction. There is no doubt that all the infants studied are at high risk for subsequent developmental problems based on the poverty and risk status of their families (Sameroff & Chandler, 1975). Longitudinal research is needed to examine the long-term risk associated with prenatal drug exposure and early developmental problems.

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Head Start to Full Start: A Progression of Gains in Fulfilling Children's Preschool Needs

Lenore Sandel

The theoretical framework of Project Head Start was documented on July 28, 1964, in "The first work of these times," the Elementary and Secondary Education Act of 1965, signed into law by President Lyndon B. Johnson. The initial purposes of compensatory programs were to prepare preschool children with learning experiences for the formal school years that were structured on development and experiential prerequisites. Provision for Preschool Training Programs was recognized through earlier demonstrations of successful demonstrations of successful interventions. One support for the authorization by Congress of the 1965 law to benefit educationally deprived children came from Ypsilanti, Michigan, where longitudinal gains were reported for the experimental group of 3- and 4-year-old children in the initial 1962 Perry Preschool Project. The project was cited as a model by the Division of Compensatory Education, USOE, in 1969 (Perry, 1969). A longitudinal study published by High/Scope in 1984 as "Changed Lives" revealed permanent gains of that program to participants at age 19.

Operation Head Start was planned to give young children with a less than adequate chance a head start for their school years. Hubert H. Humphrey, as Vice-President of the United States, termed the bill "Operation Catch-Up." Communities were responsible for submitting plans to meet their specific needs. More than 50% of the community action programs proposed to conduct year-long preschool programs for young children.

The goals and programs from the beginning were guided by research and practice related to preschool teaching and learning. In addition to the traditional nursery school materials and activities, programs for disadvantaged or culturally different children were provided with opportunities to use materials in different ways and for different purposes. Head Start children required more than enrichment and extension of experience. Their needs, confirmed in a review of research, included: a) the basic cognitive skills that they had not developed; b) the basic experiential background of a shared culture; and c) the basic social and organizational skills of school associations and materials in the group situations. These needs, essentially listed in an early reference as "characteristics and needs of preschool children" (Andrew, 1946) include companionship of other children; cooperative play with a wide variety of games, and motor and manipulative activities; security within the family; the ability to communicate readily through speech to achieve relationships with other children; and opportunities to do things for oneself. Similar factors for school-entry at age 5 are recognized in the schedules amid objectives of the model compensatory preschool programs. One terminal objective of the Perry (1969) program becomes the rationale of Head Start: "to foster a positive change in intellectual growth which would lead to academic success and social adjustment in the elementary grades."

An exemplary preschool program in Champaign, Illinois (1969), records "the most noticeable characteristic of the children after two years of instruction as their confidence in their abilities to meet a challenge" (p. 20). Follow-through support programs to maintain children's gains followed Head Start. An alert to a possible "False Start" (Butler, 1965) suggested that the primary grades should emphasize the same goals as the Head Start program and adjust learning experiences that reinforce the early gains. The recommendation at the end of the first year of Head Start was to individualize goals for every child, with emphasis on self-discipline, positive self-concept, intellectual concepts of the world of things, language development, and the creative expression of ideas.

Research directed to the failure of Head Start focused on this lack of continuity in school experiences. A recommendation from the Preschool Program in Fresno, California (1967), at the end of a continuation study, guards against "False Start" in expressing "a felt need for a greater articulation of the preschool and kindergarten programs if the latter is to capitalize adequately on the gains achieved in preschool."

One Follow-Through Research Project in Napa, California (Robbins, 1986), provided a three-year comprehensive staff-development program with teacher training in classroom management strategies and instructional practices. The quantitative data indicated gains in children's achievement, including bilingual students, at all levels of ability. Noted were qualitative outcomes such as teacher collaboration, improvement of teaching skills, and student independence with provided teacher direction through teachers' new views and approach. A longitudinal study revealed that Head Start children did maintain educationally substantive gains and cognitive/analytic ability (Lee, 1990). In New York State, Head Start was examined after two decades (Heller, 1985).

Parent involvement as a factor in several model programs (NIE, 1978) is supported by Bronfenbrenner (1974), who documents its effectiveness in the development of a child's early relationships, interests, and language. The implication is that the child's experiential background is crucial at school-entry. The need for intervention for the culturally different child is evident. A study of joint reading between Black Head Start children and their mothers (Pelligrinni, 1990) revealed that while the mothers adjusted their level of teaching to the children's level of competence, the genre, not format, affected their teaching. The assumption here is that children's competence is determined by their interactions with a more competent adult. A family literacy program, "Even Start," under U.S. Public Law 100-297 (Hawkins, 1988), provides for parent-child communication with parents and children learning together. Several positive effects of Head Start and Follow-Through on the bilingual and minority child whose experience may be culturally different or lacking support intervention (Cole, 1986; Sandoval-Martinez, 1982; Stallings, 1986).

Current literature focuses on emergent literacy and the role of experience in a child's development. An emergent literacy curriculum, activities, and objectives are linked to research on how young children learn to read and write. Theoretical principles include: 1) children's knowledge of the world and language determines the quality of meanings they construct when they read and write; 2) exposure to print helps children become aware of the opportunities for reading and writing; 3) literacy is learned best when viewed as functional and useful; and 4) exposure to literature read aloud promotes an awareness of text differences. In practice, first-hand and shared activities broaden children's experiential background, and strengthen knowledge, vocabulary, and the ability to talk about what is known (Strickland, 1990). A play environment that provides literacy enrichment confirms the effects on children's use of print in making sense of their experiences (Neuman, 1990). Listening to stories is a strong factor in children's growth in use of language (Feitelson, 1986). Of critical preschool concern is the fact that young children are expected to begin the process of literacy development before they enter school.

Research has indicated and led to the assumption that children come to kindergarten with a vast knowledge about reading and writing (Freeman, 1989). The growing whole-language approach beginning at school-entry points to language as an integral factor in learning (NYSED, 1990). Correlating whole language and emergent literacy, in theory and practice, with the cumulative research on child development and learning suggests cogent potential for application for programs and social policy.

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Homelessness in Head Start Pre-Schoolers: Preliminary Research *Rosemarie DiBiase, Sandra Waddell*

(See presentation, Panel 106, page 109)

Closing the Knowledge-Practice Gap: Disseminating Child Development Research Information Through a Newspaper Column *Maurice J. Elias*

As disappointing as it might be to persons in academia, parents typically do not read child development research. One would not be venturing too far out on a limb to say that the same is true for pediatricians, teachers, and policy makers. Yet, these individuals are very likely to read mass media publications, especially newspapers. These media often contain information about children that has an uncertain connection to child development research -- similar to the way objects naturally adhere to surfaces in outer space.

There is a growing literature on the use of the mass media to deliver prosocele and positive socialization messages, much of it growing out of the fields of community mental health and consumer research. While there has been some negative reaction to the involvement of psychologists and other mental health professionals in the workings of the mass media (Klonoff, 1983), such occurrences as the creation of the Division of Media Psychology within the American Psychological Association reflect the perspective that in a mass media and information age those concerned with the well-being of children and families cannot remain aloof from the content of the airwaves and the printed mass-media page. In discussing the dissemination of positive health messages, Goldstein and Krasner (1987) point out that the most effective messages are sustained -- something that is not characteristic of mass media. Their analysis points out the reasons why newspaper columnists with weekly (or more frequent) entries engender such loyal readerships. Messages are more likely to be assimilated when there is a consistent point of view -- something akin to what researchers might identify as a guiding theoretical perspective.

Related analysis suggest that the printed medium allows for a higher likelihood of accurate retention and a re-perusal of messages than one can achieve via television or radio (Cohen & Chakravarti, 1990). In addition, consumer researchers find that the valence of the of the information source is an important facet of message comprehension and favorability (Kiselius & Sternthal, 1986); regular newspaper columnists have the opportunity to be potent sources of influence if they are "liked." This personal attachment typically is not extended to the publication being read, so occasional or even regular child development articles by various authors are less likely to be invested with positive meaning by readers. This is characteristic of the operation of many newspapers, via stories from the AP wire, and of professional journals; magazines are most likely to have monthly parenting columnists. Of course, the literature is clear that personally mediated learning experiences ultimately are most effective, and incremental designs have shown that personal contacts add significantly to learning and behavior change resulting from media-based campaigns alone (Maccoby et al., 1977). Nevertheless, for widespread and practical utility, newspapers are ideal vehicles for conveying ways in which child development research may be used in the context of everyday childrearing (and, with little extrapolation, teaching) situations, particularly of the kind that involve Head Start children and families.

"Parenting Matters" (Elias, 1986-present) was developed to close the gap between knowledge-in-use and knowledge generated by members of the research community. It is a newspaper column in a question-and-answer format circulating regularly to nearly 100,000 individuals, including those in areas served by major Head Start centers. It provides a place for someone with

expertise in child development research to translate research-based knowledge into forms useful to persons in the community, with the focal audience being Head Start parents and teachers.

A key consideration in the effective use of a newspaper column is that the column convey a "point of view." In the context of Head Start families, an essential point of view is a developmental and systems perspective (Elias, 1989). This allows parents and teachers to understand children's behaviors -- and their own behavior -- in the context of trajectory and interaction (Elias, 1990). A complementary framework is one that provides a consistent social learning, stress-and-coping, and problem-solving orientation, again, to provide a thread of continuity in the treatment of what can seem to parents as diverse and disconnected parenting topics (Clabby & Elias, 1986; Elias & Clabby, 1988, 1989). As parents and teachers receive inductive and, occasionally, deductive exposure to these perspectives, they are likely to be better prepared to handle the myriad of parenting and teaching choice points they will have to face than they would without the aid of any guidance based in child development theory and research.

Among many titles operationalizing these considerations are "How to Know When a Young Child's Behavior Signals Serious Trouble" (10/14/87), "Using Foul Language to Scold Children Can Leave Lasting Damage" (6/11/87), "Dr. Suess' Creative, Quirky Rhymes Help Children Learn, Have a Good Time" (10/14/86), "A New Year's Resolution: Honor Thy Children" (1/3/90). In addition, the column is a vehicle for teaching and providing tangible reminders of key concepts and techniques to parents (and teachers). Some areas covered include trigger situations, time out, morning routines, dental care, family stress, standardized testing, homework, nightmares and sleep problems, and, of course, toilet training. One set of columns was generated as a "primer" that parents can use to prepare their babysitters. The column format allows parents to copy the pages and give them to their sitter. Noteworthy is that this newspaper column was honored in 1988 by the APA for Excellence in Psychology in the Media.

Newspapers can be helpful to focus column content on the early childhood years by relevant groups and individuals generating letters from parents asking for a column with that focus, and by working with potential sponsors of such a column, such as businesses and child care organizations, to pay for the column in return for the acknowledgement of this in each column, or by offering the column free of charge (Bandy & President, 1983; Collins, 1981). Relevant newspaper columns can be given targeted dissemination by having them published in a Head Start/parent newsletter, and supplemented with translations into other languages (Junior League of the Oranges and Short Hills, 1988). As an extension of these ideas, the content of columns can be read into tape recorders in various languages, and these audiotaped versions of the columns can be made available to parents for low-cost purchase, rental, or borrowing as part of a parent-teacher library, along with written versions.

In conclusion, there must be commitment to pragmatic analysis of the primary target audiences for dissemination of usable information based on child development research relevant to Head Start children, parents, teachers, as well as policy makers. A newspaper column like "Parenting Matters" is one viable way of reaching such audiences, and it can be replicated viably in nearly every community.

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APPENDIX A: Peer Reviewers

Thomas Achenbach, Ph.D.
Henry E. Adams, Ph.D.
Marilyn Jager Adams, Ph.D.
LaRue Allen, Ph.D.
Nicholas Anastasiow, Ph.D.
Catherine C. Ayoub, Ed.D.
Sandra T. Azar, Ph.D.
Margarita Azmitia, Ph.D.
Amy Baker, Ph.D.
Wendy Baldwin, Ph.D.
Kathryn Barnard, Ph.D.
Judith S. Bloch, MSW
Barbara T. Bowman, M.A.
Jeanne Brooks-Gunn, Ph.D.
Cleopatra H. Caldwell, Ph.D.
Robert Caldwell, Ph.D.
Kathleen A. Camara, Ph.D.
Judy Langford Carter, M.S.
Mary Anne Chalkley, Ph.D.
Bertram Cohler, Ph.D.
Raymond C. Collins, Ph.D.
Dewey G. Cornell, Ph.D.
James Cummins, Ph.D.
John R. Dill, Ph.D.
Carl J. Dunst, Ph.D.
Joseph Durlak, Ph.D.
Byron Egeland, Ph.D.
Robert E. Emery, Ph.D.
Doris Entwisle, Ph.D.
Joyce L. Epstein, Ph.D.
Kathleen C. Faller, Ph.D.
Dale C. Farran, Ph.D.
Lynne V. Feagans, Ph.D.
Greta G. Fein, Ph.D.
Emily Fenichel, MSW
Michael Franzen, Ph.D.
Paul J. Frick, Ph.D.
Ellen Galinsky, M.S.
Terri M. Gallmeier, Ph.D.
James Garbarino, Ph.D.
Joe Glassford
Stacie G. Goffin, Ed.D.
Ellen Gray, Ph.D.
Dominic F. Gullo, Ph.D.
Kenji Hakuta, Ph.D.
Sydney L. Hans, Ph.D.
Harriet Heath, Ph.D.
Ray E. Helfer, M.D.
Ellen Hock, Ph.D.
Hyman Hops, Ph.D.
George W. Howe, Ph.D.
Carollee Howes, Ph.D.
Nicholas Ialongo, Ph.D.
Neil Kalter, Ph.D.
Sharon Lynn Kagan, Ed.D.
Mireille B. Kanda, M.D.
May G. Kennedy, Ph.D.
Nancy K. Klein, Ph.D.
Lorraine V. Klerman, Dr.P.H.
Sally A. Koblinsky, Ph.D.
Marjorie W. Lee, Ph.D
Martha Lequerica, Ph.D.
Michael Lewis, Ph.D.
Joan Lombardi, Ph.D.
David MacPhee, Ph.D.
Ann S. Masten, Ph.D.
Harriette P. McAdoo, Ph.D.
Jacquelyn McCroskey, DSW
Vonnie McLoyd, Ph.D.
Samuel J. Meisels, Ed.D.
Gary B. Melton, Ph.D.
Noweeta Milburn, Ph.D.
Joel S. Milner, Ph.D.
Judith A. Nelson, MSW, J.D.
Carolyn Newberger, Ed.D.
Eli Newberger, M.D.
Andrew Newcomb, Ph.D.
Jean Osborn, M.A.
Joy D. Osofsky, Ph.D.
Margaret T. Owen, Ph.D.
Ura Jean Oyemade, Ph.D.
Patricia H. Papero, Ph.D.
John M. Pascoe, M.D., MPH
Christine E. Pawelski, Ed.D.
Jane Pearson, Ph.D.
Chaya Piotrkowski, Ph.D.
Stephen Porges, Ph.D.
Meta Potts, Ph.D.
Douglas R. Powell, Ph.D.
Judith Ramirez, Ph.D.
Arnaldo Ramos, Ed.D.
Holly S. Ruch-Ross, Sc.D.
Diane Scott-Jones, Ph.D.
Victoria Seitz, Ph.D.
Jack P. Shonkoff, M.D.
Milton F. Shore, Ph.D.
Lourdes Diaz Soto, Ph.D.
Graham Staines, Ph.D.
Gary Stollack, Ph.D.
Susan Taylor-Brown, Ph.D.
Sharon Telleen, Ph.D.
William D. Tynan, Ph.D.
Deborah L. Vandell, Ph.D.
Brian Vaughn, Ph.D.
Lawrence A. Vitulano, Ph.D.
Judith S. Wallerstein, Ph.D.
Margaret C. Wang, Ph.D.
Pat Ward, M.S.
Valora Washington, Ph.D.
Roger Weissberg, Ph.D.
Bernice Weissbourd, M.A.
Sheldon H. White, Ph.D.
Elaine D. Williams, M.A.
Harry Wilson, M.P.A.
Melvin N. Wilson, Ph.D.

APPENDIX B: Directory of Presenters

Martha Abbott-Shim, Ph.D.
Dept. of Early Childhood Ed.
Georgia State University
University Plaza
Atlanta, GA 30307

Richard Abidin, Ed.D.
University of Virginia
Clinical & School Psychology
405 Emmet Street, Ruffner Hall
Charlottesville, VA 22903

Marilyn Jager Adams, Ph.D.
Bolt Baranek & Newman, Inc.
10 Moulton Street
Cambridge, MA 02138

Michael Ambrose
330 C. Street, S.W.
Children's Bureau
Room 2317
Washington, DC 20201

Catherine C. Ayoub, Ed.D.
Judge Baker's Children Ctr.
295 Longwood Avenue
Boston, MA

Sandra T. Azar,Ph.D.
Clark University
Dept. of Psychology
950 Main Street
Worcester, MA 01610

JoAnne B. Barnhart
Administration For Children
and Families
370 L'Enfant Promenade, S.W.
Washinton, DC 20047

Nazli Baydar, Ph.D.
Battelle Human Affairs
Research Center
4000 NE 41st Street
Seattle, WA 98105

Tillie Bayless
Head Start Resource and
Training Center
Univ. of Maryland-Univ. College
University Blvd. at Adelphi Rd.
College Park, MD 20742

Lula A. Beatty, Ph.D.
IUAR, Howard University
2900 Van Ness Street,D.C.
Washington, D.C. 20008

David W. Beer, M.A.
Erikson Institute
25 West Chicago Avenue
Chicago, IL 60610

C. David Beers
San Juan College
4601 College Blvd.
Farmington, NM 87401

Mary I. Benedict, DrPH
Johns Hopkins University
School of Hygiene & Pub. Hlth
Maternal & Child Hlth. Dept.
Hampton House, 624 N. Broadway
Baltimore, MD 21205

Rita Benn, Ph.D.
Merrill Palmer Institute
71-A E. Ferry
Wayne State University
Detroit, MI 48202

Margaret S. Benson, Ph.D.
119 Eiche Building, PSU
Altoona Campus
Altoona, PA 16603

John R. Bergan, Ph.D.
Department of Ed., Psychology
College of Education
University of Arizona
Tuscon, AZ 85721

Christi Bergin, Ph.D.
Literacy Corps, Educa Psych.,
College of Ed., Education of
Allied Professions
University of Toledo
Toledo, OH 43606

Maureen Black, Ph.D.
Dept. of Pediatrics
Univ. of Maryland
700 W.Lombard St.
Baltimore, MD 21201

Carmen C. Blake
City of Phoenix Head Start
302 W. Washington
Phoenix, AZ 85003

Judith S. Bloch, MSW
Variety PreSchooler's Workshop
47 Humphrey Drive
Syosset, NY 11791

Paula Jorde Bloom, Ph.D.
National-Louis University
2840 Sheridan Road
Evanston, IL 60201

Christine Boesen
CDA Office-Apt. 6 Fairlane
Univ. of Michigan-Dearborn
4901 Evergreen
Dearborn, MI 48125

John G. Borkowski, Ph.D.
Department of Psychology
University of Notre Dame
Notre Dame, IN 46556

Jean Ann Box, Ph.D.
Samford University
Orlean Bullard Beeson School
of Education
800 Lakeshore Drive
Birmingham, AL 35229

Kimberly Boyd
Allengheny-Singer Research
Insitute
320 East North Avenue
Pittsburgh, PA 15212

Susan Bredekamp
National Association for the
Education of Young Children
1834 Connecticut Ave., N.W.
Washington, DC 20009

Urie Bronfenbrenner, Ph.D.
Dept. of Human Development and
Family Studies
Martha Van Rensselaer Hall
Cornell University
Ithaca, NY 14853

Jeanne Brooks-Gunn, Ph.D.
Educational Testing Service
Princeton, NJ 08541

Kimberly Browning
University of Michigan
Center for Human Growth and
Development
300 N Ingalls - 10th Level
Ann Arbor, MI 48109

Donna Bryant, Ph.D.
UNC Chapel Hill
FPG-Child Development Center
CB 8180, 300 NCNB Plaza
Chapel Hill, NC 27599

Teresa A. Buccarelli
NJ Dept. of Human
Services
222 S. Warren St.
CN 700
Trenton, NJ 08625

Margaret R. Burchinal, Ph.D.
FPG Center
105 Smith Level Road
CB 8180
Chapel Hill, NC 27599

Cleopatra H. Caldwell, Ph.D.
Family Resource Center
University of Maryland
4310 Knox Road
College Park, MD 20742

Frances A. Campbell, Ph.D.
UNC Chapel Hill
105 Smith Level Rd.
Chapel Hill, NC
27599-8180

Toni A. Campbell, Ph.D.
Child Development
San Jose State University
1 Washington Sq.
San Jose, CA 95192

Judy Carta, Ph.D.
Juniper Gardens Children's Prj
Kansas E.C. Research Institute
4132 Haworth Hall
University of Kansas
Lawrence, Kansas 66045

Hugh Catts, Ph.D.
Dept. of Speech-Lang.-Hearing
Kansas E.C. Research Institute
4132 Haworth Hall
University of Kansas
Lawrence, Kansas 66045

Mary Anne Chalkley, Ph.D.
University of St. Thomas
Mail #4145
2115 Summit Avenue
St. Paul, MN 55105

P. Linsay Chase-Lansdale, Ph.D.
Chapin Hall Ctr. for Children
University of Chicago
1155 E. 60th Street
Chicago, IL 60637

Dorothy Cheeks
Looking at Life Through
Literacy Programs
Council of Economic Opportun.
668 Euclid Avenue #700
Cleveland, Ohio 44114

Raymond C. Collins, Ph.D.
Collins Management Consulting
Inc.
415 Church St., NE, Suite 101
Vienna, VA 22180

Nancy Conklin, Ph.D.
Child, Family & Community Program
NW Regional Educational Lab.
101 S.W. Main Street
Suite 500
Portland, OR 97204

Milly Cowles
60 Springwater Chase
Newnan, GA 30265

Christopher Cross
The Business Roundtable
1615 L Street, N.W.
Washington,DC 20036

Sandra Crosser, Ph.D.
314 Dukes Memorial
Ohio Northern University
Ada, OH 45810

Dorothea Cudaback, Ph.D.
College of Natural Resources
Room 101, Gianinni Hall
University of California
Berkeley, CA 94720

Bruce Cushna, Ph.D.
Developmental Evaluation Ctr.
Children's Hospital
300 Longwood Avenue
Boston, MA 02115

Peggy Daisey, M.A.
Kansas State University
Bluemont Hall
Manhattan, KS 66027

Lois-ellin Datta, Ph.D.
30 South Cypress
Cobb Island, MD 20625

Barbara D. DeBaryshe, Ph.D.
Dept. of Child Development
and Family Relations
Univ. of North Carolina
Greensb ro, NC 27412

Dennis Deloria
MOBIUS Corp.
405 N. Henry Street
Alexandria, VA 22314

Sharon Deich, Ph.D.
The Urban Institute
2100 M Street, NW
Washington, DC 20037

Debra DeMeis, Ph.D.
Hobart and William Smith
Colleges
300 Pulteney Street
Geneva, NY 14456

Rosemarie DiBiase, Ph.D.
Suffolk University
Dept. of Psychology
41 Temple Street
Boston, MA 02114

David K. Dickinson
Clark University
Education Department
950 Main Street
Worcester, MA 01610

John R. Dill, Ph.D.
Memphis State University
Academic Affairs
Memphis, TN 38152

Laura Dittman, Ph.D.
University of Maryland
Box 66
Garrett Park, MD 20896

Amy Driscoll, Ed.D.
Portland State University
P. O. Box 751
Portland, OR 97207

Greg J. Duncan, Ph.D.
Survey Research Center
University of Michigan
P.O. Box 1248
Ann Arbor, MI 48106

Maureen Durkin, Ph.D.
Sergievsky Center
Columbia University
630 W. 168th Street
New York, NY 10032

John Eckenrode, Ph.D.
Department of Human Dev. &
Family Studies
MVR Hall
Cornell Universty
Ithaca, NY 14853

Helen G. Edwards, MPH
WOMEN IN NEED
323 W. 39th Street
New York, NY 10018

Patricia A. Edwards, Ph.D.
Dept. of Teacher Education
Michigan State University
330 Erickson Hall
East Lansing, MI 48824

James Egan, Ph.D.
35 Wisconsin Circle
Chevy Chase, MD 20815

Marlene Eisenberg, Ph.D.
University of Virginia
Department of Psychology
102 Gilmer Hall
Charlotteville, VA 22903

Toni Hembree Eisenstadt, Ph.D.
University of Alabama
Dept. of Psychology
Box 870348
Tuscaloosa, AL 35487

Maurice J. Elias, Ph.D.
Rutgers University
Dept. of Psychology
Livingston Campus
New Brunswick, NJ 08903

Diana J. English, Ph.D.
Children's Srvcs.Research Proj
Div. of Management Srvcs-CYFS
1212 Jefferson Street
Mail Stop PG-24
Olympia, WA 98504

Doris R. Entwisle, Ph.D.
Sociology Department
Johns Hopkins University
Baltimore, MD 21218

Willie Epps, Ph.D.
Southern Illinois University
411 East Broadway
East St. Louis, IL 62201

Claire B. Ernhart, Ph.D.
Department of Psychiatry
Metro Health Medical Center
Cleveland, OH 44109

Jay Fagan, D.S.W.
Temple University
School of Social Admin.
Ritter Hall Annex, Fifth Fl.
13th & Cecil B. Moore Ave.
Philadelphia, PA 19122

John W. Fantuzzo, Ph.D.
Graduate School of Education
University of Pennsylvania
3700 Walnut Street
Philadelphia, PA 19104

Elizabeth Farquhar
U.S. Department of Education
400 Maryland Ave., S.W.
Room 3127
Washington, DC 20202

Dale C. Farran, Ph.D.
Dept. of Child Development
Family Relations-
UNC-Greensboro
C-5 Park Building
Greensboro, NC 27412

Lynne Feagans, Ph.D.
Dept. of Individual and
Family Studies
Penn State University
S110 Henderson Hall
University Park, PA 16802

Susan Feigelman, Ph.D.
University of Maryland Medical
Center
700 West Lombard Street
Baltimore, MD 21201

Susan Feingold
Bloomingdale Family Program
125 W. 109th Street
New York, NY 10025

Jason K. Feld
Department of Educational
Psychology
College of Education
University of Arizona
Tuscon, AZ 85721

Norma Deitch Feshbach, Ph.D.
Graduate School of Education
UCLA
Los Angeles, CA 90024

Janet E. Fischel
Department of Pediatrics
SUNY, Health Sciences
Stony Brook, NY 11794

Barbara Foulks, Ed.D.
Department of Education
SUNY Geneseo
Geneseo, NY 14454

Mary M. Frasier, Ph.D.
Torrance Center for
Creative Studies
323 Aderhold Hall
University of Georgia
Athens, GA 30602

Paul J. Frick, Ph.D.
Department of Psychology
University of Alabama
P.O. Box 870348
Tuscaloosa, AL 35438

Janice L. Friedman, M.A.
Variety Pre-Schooler's
Workshop
47 Humphrey Drive
Syosset, NY 11791

Mary Frost
Department of Community
Development
9th and Columbia Building
MS/GH-51
Olympia, WA 98504

Frank Fuentes
Chief, H.S. Migrant Branch
Department of Health and Human
Services
330 C Street,SW, Rm. 2225
Switzer Bldg.
Washington, DC 20201

Victoria R. Fu, Ph.D.
Dept. of Family & Child Dev.
Virginia Polytechnic Institute
and State University
203 Wallace Annex
Blacksburg, VA 24061

Vivian L. Gadsden, Ph.D.
National Ctr on Adult Literacy
Graduate School of Education
University of Pennsylvania
3700 Walnut Street
Philadelphia, PA 19104

Harlene Galen
Magowan School
Cherrix Avenue
Edgewater Park, NJ 08010

Aline Garrett, Ph.D.
Department of Psychology
Univ. of Southwestern Louisiana
Box 43131
Lafayette, LA 70504

Richard J. Gelles, Ph.D.
Family Violence Research Prog.
Chafee Social Science Ctr 509A
University of Rhode Island
Kingston, Rhode Island 02881

Martin Gerry, Ph.D.
Assistant Secretary for
Planning and Evaluation
Dept. of Health & Human Srvc.
200 Independence Ave., S.W.
Washington, DC 20201

Herbert P. Ginsburg, Ph.D.
Box 184
Dept. of Developmental Psych.
Teachers College
Columbia University
New York, NY 10027

Laraine Masters Glidden, Ph.D.
School of Social Welfare
120 Haviland Hall
University of California
Berkeley, CA 94720

Stacie G. Goffin, Ed.D.
309 School of Education
University of Missouri-KC
Kansas City, MO 64110

Susan Gold, Ed.D.
Mailman Center for Child Development
P.O. Box 016820 (D-820)
University of Miami
Miami, FL 33101

Doris Goldberg, MD,MPH
Box 27, Rm 1003
125 Worth Street
New York, NY 10024

Claude Goldenberg, Ph.D.
UCLA and Lennox School District
760 Westwood Plaza UCLA - NPI
Los Angeles, CA 90024

Berverly A. Goldfield, Ed.D.
Box 5352 Connecticut College
270 Mohegan Avenue
New London, CT 06320

Barbara D. Goodson, Ph.D.
ABT Associates, Inc.
55 Wheeler Street
Cambridge, MA 02138

Robert Granger, Ed.D.
Manpower Demonstration Research Corporation
Three Park Avenue
New York, NY 10016

Ellen Gray, Ph.D.
Center for Applied Social Science Research
Allegheny College
Meadville, PA 16335

Katherine H. Greenberg, Ph.D.
321 Claxton Addition
University of Tennessee
Knoxville, TN 37996

Angela Dungee Greene, M.A.
Family Research Center
Dept. of Family & Community Development
University of Maryland
College Park, MD 20742

Sarah M. Greene
Manatee County Head Start
1707 15th Street, East
Brandenton, FL 34208

Daryl Greenfield, Ph.D.
University of Miami
P.O. Box 016820 (D-820)
Miami, FL 33101

Sadie A. Grimmett
Institute for Child Study
910 N. State Road, 46 ByPass
Bloomington, IN 47405

Louise F. Guerney, Ph.D.
101 Beecher House
Pennsylvania State Univ.
University Park, PA 16802

Beatrice Guilbault, CAGS
Center for Family Dev.
45 Merrimack Street
Lowell, MA 01852

Dominic F. Gullo, Ph.D.
University of Wisconsin
P.O. Box 413, Enderis Hall 310
Milwaukee, WI 53201

Azar Hadadian, Ph.D.
207 Lommen
Special Education & Counseling
MSU
Moorhead, MN 56563

Patricia Haensly, Ph.D.
Institute for the Gifted & Talented, Educ. Psychology Dept
704 Harrington
Texas A&M University
College Station, TX 77843

John W. Hagen, Ph.D.
Society for Research in Child Development
University of Michigan
300 N. Ingalls
Ann Arbor, MI 48109

Fran Hagstrom, M.S.
Department of Psychology
Clark University
950 Main Street
Worcester, MA 01610

Trudy M. Hamby, Ph.D.
MIND,
Univ. of Maryland @ Coll. Park
College of Education
3304 Benjamin Building
College Park, MD 20742

Judith Hammer
Center for Child & Family Development
555 Constitution, Suite 221
Norman, OK 73037

Michele Haney, Ph.D.
California State University Northridge
18111 Nordhoff-EDUC
Northridge, CA 91330

Gloria L. Harbin, Ph.D.
Frank Graham Porter Child Development Center
UNC at Chapel Hill
Hwy.-54 Bypass West
Chapel Hill, NC 27514

Robert Hardy,
Institute of Child Study
University of Maryland
College Park, MD. 29742

Thelma Harms, Ph.D.
FPG Child Dev. Center
300NCNB Plaza
Chapel Hill, NC 27599

Patricia Hashima
University of Nebraska
Psychology / 209 Burnett Hall
Lincoln, NE 68588

Ronald Haskins, Ph.D.
Human Resources Council
1106 Longworth HOB
Washington, DC 20515

Patricia Hawkins
A.C.Y.F.
Box 1182
Washington, DC 20013

Susan M. Hegland, Ph.D.
201 CD Bldg.
Iowa State University
Ames, IA 50011

Laura Henderson
University of Michigan
Center for Human Growth & Development
300 N. Ingalls -10th Level
Ann Arbor, MI 48109

Barbara Hernandez
Young Adult Learning Academy
320 E. 96th Street
New York, NY 10128

John S. Hicks, Ed.D.
Variety Pre-Schooler's Workshop
47 Humphrey Drive
Syosset, NY 11791

Charles W. Hill, Ph.D.
Regina Coeli Child Development Center, Inc.
P.O. Box 3303
Covington, LA 70434

Suzanne D. Hill, Ph.D.
Regina Coeli Child Development Center, Inc.
P.O. Box 3303
Covington, LA 70434

Blythe Hinitz, Ed.D.
Trenton State College
FH 389
Trenton, NJ 08650

Erika Hoff-Ginsberg, Ph.D.
Department of Psychology
Univ. of Wisconsin-Parkside
Kenosha, WI 53141

Sandra L. Hofferth, Ph.D.
The Urban Institute
2100 M Street, N.W.
Washington, DC 20037

Lillian O. Holloman, Ph.D.
School of Human Ecology
Howard University
2400 Sixth Street, NW
Washington, DC

Alice Sterling Honig
206 Slocum Hall
Syracuse University
Syracuse, NY 13244

Wade F. Horn, Ph.D.
Office of Human Development Services
A.C.Y.F.
Box 1182
Washington, DC 20013

Patricia D. Horsch
Erikson Institute
25 W. Chicago
Chicago, IL 60610

Elizabeth J. Hrncir, Ph.D.
230 Ruffner Hall
University of Virginia
405 Emmet Street
Charlottesville, VA 22903

Tonya Huber, Ph.D.
College of Education
The Wichita State Univ.
Wichita, KS 67208

Sharon Hutson
Regina Coeli Child Development Center
832 E. Boston Street
Covington, LA 70433

Nicholas Ialongo, Ph.D.
12 Tilton Court
Baltimore, MD 21205

Evan W. Ingersoll
3107 Horsebarn Hill Road
University of Connecticut
U-154
Storrs, CT 06269

Joan P. Isenberg, Ed.D.
Department of Curriculum & Instruction
George Mason University
Fairfax, VA 22030

Timothy J. Iverson, Ph.D.
3730 Coconut Creek Pkwy
Ste 250
Coconut Creek, FL 33066

Ellen Jacobs
Department of Education
Concordia University
1455 de Maissoneuve Blvd. West
Montreal, Quebec
CANADA H3G 1M8

Robert J. Jagers, Ph.D.
Department of Psychology
Box 4348 Mail Code 285
Univ. of Illinois @ Chicago
Chicago, IL 60680

Elizabeth Jeppson, Ph.D.
Association for the Care of Children's Health
7910 Woodmont Ave., Suite 300
Bethesda, MD 20814

Sharon L. Kagan, Ed.D.
Yale Bush Center
P. O. Box 11A
Yale Station
New Haven, CT 06520

Ruth Kahn, Ph.D.
St. Joseph's College
1678 Asylum Avenue
West Hartford, CT 06117

Barbara Kamera
Office of Early Childhood Development
609 H Street, NE
Washington, DC 20002

Bonnie M. Kerr, Ph.D.
Center for the Study of Reading, Univ. of Illinois
174 Children's Research Center
51 Gerty Drive
Champaign, IL 61820

Ellen Eliason Kisker, Ph.D.
Mathematica Policy Research, Inc.
P. O. Box 2393
Princeton, NJ 08543

Alice Klein
Institute of Human Development
University of California, Berkeley
Berkeley, CA 94720

Nancy K. Klein, Ph.D.
College of Education
Cleveland State University
Cleveland, OH 44115

Sally A. Koblinsky, Ph.D.
Family & Community Dev.
1204G Marie Mount Hall,UMCP
College Park, MD 20742

Charles Kolb
Deputy Asst. to the President for Domestic Policy
The White House
Washington, DC 20500

Alan Kraut, Ph.D.
American Psychological Society
1511 K Street, N.W.
Suite 345
Washington, DC 20005

J. Ronald Lally, Ph.D.
Far West Lab. for Educational Research & Development
180 Harbor Drive, Suite 112
Sausalito, CA 94965

James Langford
Children's Aid Society
150 E. 45th Street
New York, NY 10017

Luis M. Laosa, Ph.D.
Educational Testing Service
Division of Educational Studies
Princeton, NJ 08540

Velma Lapoint, Ph.D.
1313 Fern Street, N.W.
Washington, DC 20059

A. Fredericka Larsen
c/o WSOS Community Action Commission
109 S. Front Street
Fremont, OH 43420

Jean Layzer, Ph.D.
ABT Associates, Inc.
55 Wheeler Street
Cambridge, MA 02138

Irving Lazar, Ph.D.
326 Sunnyview Lane
Ithaca, NY 14850

Bonnie J. Leadbeater, Ph.D.
Yale University
Department of Psychology
P.O. Box 11A Yale Station
New Haven, CT 06520

R.K. Leik, Ph.D.
1074 Soc. Science Tower, 267
19th Avenue South
University of Minnesota
Minneapolis, MN 55406

Martha Lequerica, Ph.D.
Department of Psychology
Russ Hall 230
Montclair State College
Montclair, NJ 07043

Jerome Levitt
Office Educ. Accountability
Dade County Public Schools
1444 Biscayne Blvd., Suite 100
Miami, FL 33132

Mary J. Levitt, Ph.D.
Florida International Univ.
Psychology Department
North Miami, FL 33181

Mary Lewis, Ph.D.
Dept. of Health and Human Services
330 C Street, SW, Room 2211
Switzer Building
Washington, DC 20201

Michael Lewis, Ph.D.
UMDNJ
Robert Wood Johnson Medical School
MEB CN19
New Brunswick, NJ 08903

Fong-ruey Liaw
University of Michigan
Center for Human Growth and Development
300 N. Ingalls - 10th Level
Ann Arbor, MI 48109

Carol S. Lidz, Psy.D.
Temple University
School of Psychology Program
Ritter Annex
Philadelphia, PA 19122

Louis Lipsitt
American Psyhcological Association
1200 17th Street, N.W.
Washington, DC 20036

Joan Lombardi, Ph.D.
1941 Shiver Drive
Alexandria, VA 22307

Barbara Louis, MS
Institute for the Study of Child Development
97 Paterson Street
New Brunswick, NJ 08903

John M. Love, Ph.D.
RMC Research Corporation
400 Lafayette Road
Hampton, NH 03842

Elaine Luksus
Growth and Opportunity, Inc.
16430 Monterey Rd., St. 2
Morgan Hill, CA 95037

John T. MacDonald, Ph.D.
Asst. Secretary for Elementary and Secondary Education
Department of Education
400 Maryland Ave, SW, Rm. 2189
Washington, DC 20201

Patricia Goth Mace, Ph.D.
Child & Family Services
1680 Alvany Ave.
Hartford, CT 06105

David MacPhee, Ph.D.
Dept. of Human Development
Colorado State University
Fort Collins, CO 80523

Rebecca A. Marcon, Ph.D.
Department of Psychology
Davidson College
Davidson, NC 28036

Barbara Martin, Ed.D.
Nurse Managed Health Care Facility
Suite 4456,411 E. Broadway
East St. Louis, IL 62201

Jana M. Mason, Ph.D.
Center for the Study of Reading, Univ. of Illinois
174 Children's Research Center
51 Gerty Drive
Champaign, IL 61820

Rosemary Mazzatenta, M.S.Ed
Prekindergarten Head Start
13th & Spring Garden Street,
Room 301
Philadelphia, PA 19123

Robert B. McCall, Ph.D.
901 Cathedral of Learning
University of Pittsburgh
Pittsburgh, PA 15260

Kathleen McCartney, Ph.D.
Department of Psychology
University of New Hampshire
Conant Hall
Durham, NH 03824

Christine McCormick
Psychology Department
Eastern Illinois University
Charlestown, IL 61920

Vonnie McLoyd, Ph.D.
Mason Hall
University of Michigan
300 N. Ingalls
Ann Arbor, MI 48109

Samuel J. Meisels, Ed.D.
University of Michigan
CHGD -1010SW
300 N Ingalls
Ann Arbor, MI 48109

Linda J. Miller, Ph.D.
320 East North Avenue
Pittsburgh, PA 15212

Janice Molnar, Ph.D.
Research Division
Bank Street College of Ed.
610 W. 112th Street
New York, NY 10025

Kristin A. Moore, Ph.D.
Child Trends Inc.
2100 M. Street, N.W.
Suite 610
Washington, DC 20037

Linda Musun-Miller, Ph.D.
Department of Psychology
University of Arkansas @
Little Rock
2801 S. University
Little Rock, AR 72204

Prasanna Nair, M.D.MPH
700 W. Lombard Street
Baltimore, MD 21201

Petra Nicholson
Harvard Graduate School of Ed.
Larsen Hall, 3rd Floor
Cambridge, MA 02138

Katherine Nitz, M.S.
Dept. of Psychology
The George Washington Univ.
Bldg. GG
Washington, DC 20052

Diane Novak
Highland Park Elementary Sch.
397 Porter Street
Manchester, CT 06040

Antonia Novello, M.D.
Surgeon General Public Health
Service
200 Independence Avenue, S.W.
Room 710G
Washington, DC 20201

Stephen Nowicki, Ph.D.
Dept. of Psychology
Emory University
Atlanta, GA 30322

Juliet Nuss, M.A.
Penn State University
S-110 Henderson Bldg.
University Park, PA 16802

Ann O'Bar
Center for Child & Family
Development
555 Constitution, Suite 221
Norman, OK 73037

Marion O'Brien, Ph.D.
Kansas Early Childhood
Research Institute (BCR)
4132 Haworth
The University of Kansas
Lawrence, KS 66045

Patricia O'Connor, Ph.D.
Department of Psychology
Russell-Sage College
Troy, NY 12180

Ellen O'Kelly, M.A.
City of Phoenix Head Start
302 W. Washington
3rd Floor
Phoenix, AZ 85032

Terrance Olson, Ph.D.
Suite 1000 Kimball Tower
Brigham Young University
Provo, UT 84602

Ura Jean Oyemade, Ph.D.
Howard University
School of Human Ecology
Washington, DC 20059

Roberta L. Paikoff, Ph.D.
Educational Testing Service
Princeton, NJ 08541

Ruth Palombo, MS, RD
Office of Nutrition
Massachusetts Department of
Public Health
150 Tremont Street, 3rd Fl.
Boston, MA 02111

Kyung Ja Park, M.A.
201 Slocum Hall
Syracuse University
Syracuse, NY 13244

Faith Lamb Parker, Ph.D.
NCJW Center for the Child
53 West 23rd Street, 6th Fl.
New York, NY 10010

John M. Pascoe, M.D.
Department of Pediatrics
H6/440; Univ. of Wisconsin
Hospital & Clinics
600 Highland Avenue
Madison, WI 53792

Daniel Pelletier, Ph.D.
U.Q.A.H.
P.O.Box 1250
Stn.B
Hull (Quebec)
Canada J8X-3X7

Cornel Pewewardy, D.Ed.
American Indian Magnet School
360 Colbourne Street
St. Paul, MN 55102

Deborah Phillips, Ph.D.
Department of Psychology
University of Virginia
102 Gilmer Hall
Charlotteville, VA 22903

Chaya Piotrkowski, Ph.D.
NCJW Center for the Child
53 West 23rd Street, 6th Fl.
New York, NY 10010

Juan Preciado, Ph.D.
Hostos - CUNY
475 Grand Concourse
Bronx, NY 10451

Catherine Raeff, M.A.
Department of Psychology
Clark University
950 Main Street
Worcester, MA 01610

Yvonne Rafferty, Ph.D.
Advocates for Children of NY
2416 Bridge Plaza South
Long Island City, NY 11101

P. Christian Ragland, M.S.
SIUE/St. Clair County Head Start
411 E. Broadway
East St. Louis, IL 62201

Craig T. Ramey, Ph.D.
Civitan International Research
Center
Univ. of Alabama at Birmingham
P.O. Box 313, UAB Station
Birmingham, Alabama 35292

Sharon Ramey, Ph.D.
Civitan Int'l. Research Center
P.O. Box 313 UAB Station
Birmingham, AL 35292

Judith Ramirez, Ph.D.
Child Development Dept.
California State Univ.
EC 105
Fullerton, CA 92634

Maria Christina Ramirez, M.A.
Department of Psychology
Clark University
950 Main Street
Worcester, MA 01610

Arnaldo Ramos, Ed.D.
250 West 16th Street #5D
New York, NY 10011

Linda Randolph, M.D.
NYS Department of Health
Room 1482, ESP Corning Tower
Building
Albany, NY 12237

Suzanne Randolph, Ph.D.
American Red Cross
1709 New York Avenue, NW
Suite 208
Washington, DC 20006

Yvonne B. Reedy, M.Ed.
Cen-Clear Child Services, Inc.
P.O. Box 129
Philipsburg, PA 16866

Halcyon Reese-Learned
Psychology Department
University of Houston
Houston, TX 77204

Arthur J. Reynolds, Ph.D.
Department of Psychology
Yale University
Box 11A Yale Station
New Haven, CT 06520

Nancy Rhett, M.P.A.
U.S. Dept. of Education
Office of the Under Secretary
Planning and Evaluation Service
Washington, DC 20202

Mabel Rice, Ph.D.
Dept. of Speech-Lang.-Hearing
Kansas E.C. Research Institute
4132 Haworth Hall
University of Kansas
Lawrence, KS 66045

Julius Richmond, M.D.
Department of Social Medicine
641 Huntington Avenue, 3rd Fl.
Boston, MA 02115

Sylvia Ridlen, Ph.D.
Hunter College School of
Social Work
129 East 79th Street
New York, NY 10021

J. Rispens, Ph.D.
Department of Child Studies
Faculty of Social Sciences
P.O. Box 80.140
3508 TC Utrecht
NETHERLANDS

Richard N. Roberts, Ph.D.
Early Intervention Research
Institute, USU
Logan, UT 84322

Mary Evans Robinson, Ph.D.
15867 Crabbs Branch Way
Rockville, MD 20855

Ruth Robinson, MSW
NCJW Center for the Child
53 West 23rd St.
New York, NY 10010

Harriett Romo, Ph.D.
Dept. of Sociology-Anthropology
Southwest Texas State Univ.
San Marcos, TX 78666

Ricardo Romo, Ph.D.
Department of History
University of Texas
Austin, Texas 78712

Allison A. Rosenberg, Ph.D.
Public Interest Directorate
American Psychological Assoc.
1200 17th Street, N.W.
Washington, DC 20036

Leon Rosenberg, Ph.D.
Children's Center
Johns Hopkins Hospital
600 N. Wolfe Street, Rm. 396
Baltimore, MD 21205

Sherman Rosenfeld, Ph.D.
Wings for Learning
P.O. Box 660002
1600 Green Hills Road
Scotts Valley, CA 95067

Christine Ross, Ph.D.
Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543

B.B. Robbie Rossman, Ph.D.
Psychology Department
University of Denver
Denver, CO 80208

Richard Ruth, Ph.D.
11303 Amherst Avenue
Suite 1
Wheaton, MD 20902

Patricia Ryan, Ph.D.
National Foster Care Resource
Center
Eastern Michigan University
Ypsilanti, MI 48197

Eli Saltz, Ph.D.
Merrill Palmer Institute
Wayne State University
71-A E. Ferry
Detroit, MI 48202

Rosalyn Saltz, Ph.D.
University of Michigan-Dearborn
School of Education
4901 Evergreen
Dearborn, MI 48128

Soledad Sambrano, Ph.D.
Department of Health & Human
Services
330 C Street, S.W., Rm. 2219
Switzer Building
Washington, DC 20201

Lenore Sandel
Hofstra University
Hempstead, NY 11550

Kathy Sanders-Phillips, Ph.D.
Department of Pediatrics
King/Drew Medical Ctr., M.P.#9
12021 South Wilmington Avenue
Los Angeles, CA 90059

Laura Scaramella, M.S.
University of Arizona
Family Studies
FCR 210
Tuscon, AZ 88721

Sandra Scarr, Ph.D.
Department of Psychology
University of Virginia
102 Gilmer Hall
Charlottesville, VA 22903

Daniel R. Scheinfeld, Ph.D.
Erikson Institute
25W. Chicago Avenue
Chicago, IL 60610

Phyllis Schneider, Ph.D.
Speech Pathology & Audiology
Univ. of Alberta
Edmonton, AB T6G OT2
CANADA

Barbara Schwartz, Ph.D.
NYU Resource Access Project
48 Cooper Square,Rm 103
New York, NY 10003

Lawrence J. Schweinhart, Ph.D.
High/Scope Educational
Research Foundation
600 N. River Street
Ypsilanti, MI 48198

Carol Seefeldt, Ph.D.
College of Education
University of Maryland
College Park, MD 21035

Marilyn M. Segal, Ph.D.
Mailman Family Foundation, Inc
707 Westchester Avenue
White Plains, NY 10604

Ethel Seiderman
Parent Service Project, Inc.
199 Porteous Avenue
Fairfax,CA 94930

Victoria Seitz, Ph.D.
Yale University
Dept. of Psychology
P.O. Box 11A Yale Station
New Haven, CT 06520

Irma H. Serrano, C.S.W.
1967 Turnbull Ave.
Rm #28
Bronx, NY 10473

Barbara E. Shaw
Parent Services Project, Inc.
199 Porteous Avenue
Fairfax, CA 94930

Marilyn Sheerer, Ph.D.
Northern Illinois University
Dekalb, IL

Sr. Mary Sheridan, Ph.D.
Babyland Nursery, Inc.
755 South Orange Ave.
Newark, NJ 07106

Milton Shore, Ph.D.
1370 Lamberton Drive
Silver Springs, MD 20902

Jo Shrable
Northeast Arkansas Development Council
P.O. Box 3349
Batesville, AR

Myrna B. Shure, Ph.D.
Hahnemann University
Broad & Vine
MS 626
Philadelphia, PA 19102

Mary Lou de Leon Siantz, Ph.D.
1111 Middle Drive
Indianapolis, IN 46202

Diana T. Slaughter-Defoe, Ph.D.
Northwestern University
School of Education & Social Policy
2003 Sheridan Road
Evanston, IL 60201

Marilyn Smith, Ed.D.
National Association for the Education of Young Children
1834 Connecticut Avenue, NW
Washington, DC 20009

Sheila Smith
Foundation for Child Dev.
345 E. 46th Street
New York, NY 10017

James Snyder, Ph.D.
Department of Psychology
Wichita State University
Wichita, KS 67208

Susan Sonnenstein, Ph.D.
Department of Psychology
University of Maryland Baltimore County
Baltimore, MD 21228

Lourdes Diaz Soto, Ph.D.
Penn State University
157 Chambers Building
University Park, PA 16801

Joseph J. Sparling, Ph.D.
FPG Center
105 Smith Level Rd.
CB 8180,UNC-CH
Chapel Hill, NC 27599

Margaret Spencer
Emory University
Department of Psychology
Atlanta, GA 30322

Robert St. Pierre, Ph.D.
ABT Associates, Inc.
55 Wheeler Street
Cambridge, MA 02138

Prentice Starkey, Ph.D.
School of Education
Univ. of California, Berkeley
Berkeley, CA 94720

Dorothy M. Steele
University of Michigan
Center for Human Growth & Development
300 N. Ingalls -10th Level
Ann Arbor, MI 48109

Keith Storey, Ph.D.
Allegheny-Singer Research Inst
Early Ch. Intervention Program
320 E. North Ave.
Pittsburgh, PA 15212

Andrew J. Stremmel, Ph.D.
Dept. of Family & Child Dev.
Virginia Polytechnic Institute and State University
Blacksburg, VA 24061

Patricia M. Sullivan, Ph.D.
Boy's Town National Research Hospital
555 North 30th Street
Omaha, NE 68131

Brian Sutton-Smith, Ph.D.
Graduate School of Education
University of Pennsylvania
Philadelphia, PA 19104

Janet Swartz
ABT Associates, Inc.
55 Wheeler Street
Cambridge, MA 02138

Susan Taylor-Brown, Ph.D.
Syracuse University
110 Brockway Hall
Syracuse, NY 13224

Rachel Theilheimer, MSed
Borough of Manhattan Community College
199 Chamber Street, N606
New York, NY 10007

Jacquelyn Thompson, M.A.
Office of Early Childhood Ed.
Michigan Dept. of Education
P.O. Box 30008
Lansing, MI 48909

Lynn Thompson
Clay Wilkin Head Start
810 4th Avenue So.-Suite 142
Moorhead, MN 56560

Suzanne Thouvenelle, Ed.D.
MOBIUS Corporation
405 N. Henry Street
Alexandria, VA 22314

Penelope K. Trickett, Ph.D.
Univ. of Southern California
Los Angeles, CA 90089

Judy Towry, M.S.
United Community Action Program, Inc.
P.O. Box 384
Pawnee, OK 74058

Ikechukwu C. Ukeje, Ed.D.
ISCD
RWJ MED. Sch.
97 Paterson Street
New Brunswick, NJ 08903

Carole C. Upshur, Ed.D.
Univ. of Massachusetts Medical Sch.
Department of Pediatrics
55 Lake Avenue North
Worcester, MA 01655

Ina C. Uzgiris, Ph.D.
Department of Psychology
Clark University
950 Main Street
Worcester, MA 01610

Maribel Vargas, M.A.
558 East 191 Street
Apt. 31
Bronx, NY 10458

Joyce Videlock, Ph.D.
Temple University
Ctr. for Research in Human Development and Education
Ritter Annex-9th Floor
Philadelphia, PA 19122

Joan I. Vondra, Ph.D.
University of Pittsburgh
Department of Psychology in Ed
5C01 Forbes Quadrangle
Pittsburgh, PA 15206

Judith Wahrman, Ph.D.
WSOS Community Action Commission, Inc.
P.O. Box 590
109 South Front Street
Fremont, OH 43240

Pat Ward, M.S.
National Council of Jewish Women
53 West 23rd Street
New York, NY 10010

Valora Washington, Ph.D.
W.K. Kellogg Foundation
400 North Avenue
Battle Creek, MI 49017

Deborah Weatherston, M.A.
Merrill Palmer Institute
71-A E. Ferry
Wayne State University
Detroit, MI 48202

Susan Weber
A.C.Y.F. / Box 1182
Washington, DC 20013

Anne Wehrly, Ph.D.
Educational Psychology Dept.
704 Harrington
Texas A & M University
College Station, TX 77843

David Weikart
High/Scop Educa. Res. Found.
600 N. River Street
Ypsilanti, MI 48198

Heather Weiss, Ed.D.
Harvard Family Research Proj.
Longfellow Hall
Appain Way
Cambridge, MA 02138

Donna Romano White, Ph.D.
Department of Psychology
Ctr. for Research in Human Dev
Concordia University
1455 de Maissioneuve Blvd West
Montreal, QUEBEC
CANADA H3G 1M8

Sheldon H. White, Ph.D.
Department of Psychology
Harvard University
Cambridge, MA 02160

Grover J. Whitehurst, Ph.D.
Department of Psychology
SUNY Stony Brook
Stony Brook, NY 11794

Mary P. Whitney
University of Connecticut
U - 154
Storrs, CT 06269

Jean L. Wiecha, M.S.
Massachusetts Dept. of Public Health
150 Tremont Street, 3rd Fl.
Boston, MA 02111181

Elaine D. Williams, M.A.
3212 Fish Avenue
Bronx, NY 10469

Melvin N. Wilson, Ph.D.
Dept. of Psychology
102 Gilmer Hall
University of Virginia
Charlottesville, VA 22903

Ellen Wolpow, M.A.
Child Trends, Inc.
2100 M Street, NW, #610
Washington, DC 20037

Leslie Yenkin
MOBIUS Corporation
405 N. Henry Street
Alexandria, VA 22314

Robert K. Yin, Ph.D.
1735 Eye Street,N.W.
Suite 613
Washington, DC 20006

Kathy Zantal-Weiner, Ph.D.
COSMOS Corporation
1735 Eye Street, N.W.
Suite 613
Washington, DC 20006

Edward Zigler, Ph.D.
Bush Center in Child Dev. and Social Policy
P.O. Box 11A Yale Station
New Haven, CT 06520